


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL				1. WELL NAME and NUMBER NBU 1022-1002CS		
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				3. FIELD OR WILDCAT NATURAL BUTTES		
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES		
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.				7. OPERATOR PHONE 720 929-6587		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				9. OPERATOR E-MAIL mary.mondragon@anadarko.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 025187		11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		
13. NAME OF SURFACE OWNER (if box 12 = 'fee')				14. SURFACE OWNER PHONE (if box 12 = 'fee')		
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')				16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>		
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	180 FSL 1803 FWL	SESW	10	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	915 FSL 2310 FEL	SWSE	10	10.0 S	22.0 E	S
At Total Depth	915 FSL 2310 FEL	SWSE	10	10.0 S	22.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 915		23. NUMBER OF ACRES IN DRILLING UNIT 600		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 510		26. PROPOSED DEPTH MD: 8865 TVD: 8550		
27. ELEVATION - GROUND LEVEL 5094		28. BOND NUMBER WYB000291		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		
ATTACHMENTS						
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES						
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER			<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)			<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)			<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
NAME Danielle Piernot		TITLE Regulatory Analyst		PHONE 720 929-6156		
SIGNATURE		DATE 08/13/2009		EMAIL danielle.piernot@anadarko.com		
API NUMBER ASSIGNED 43047506370000		APPROVAL  Permit Manager				

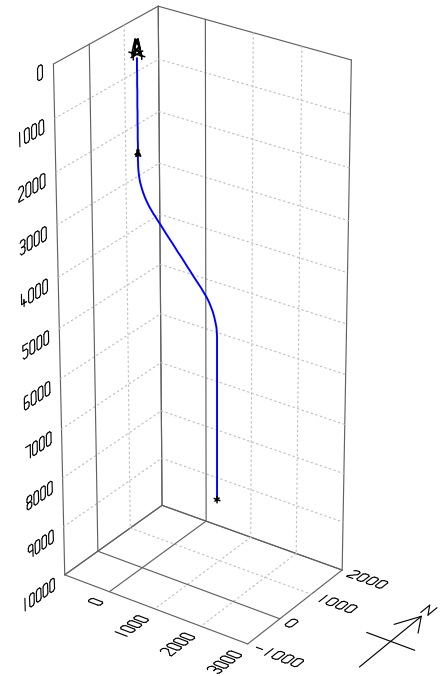
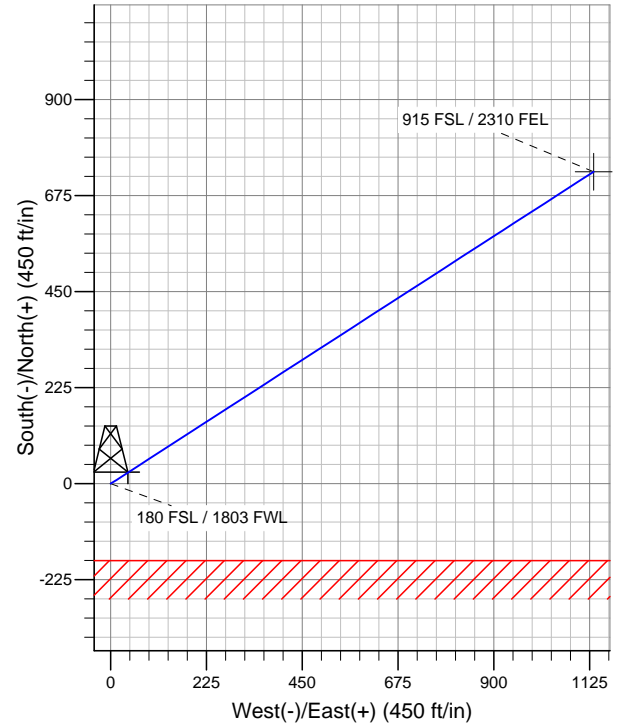
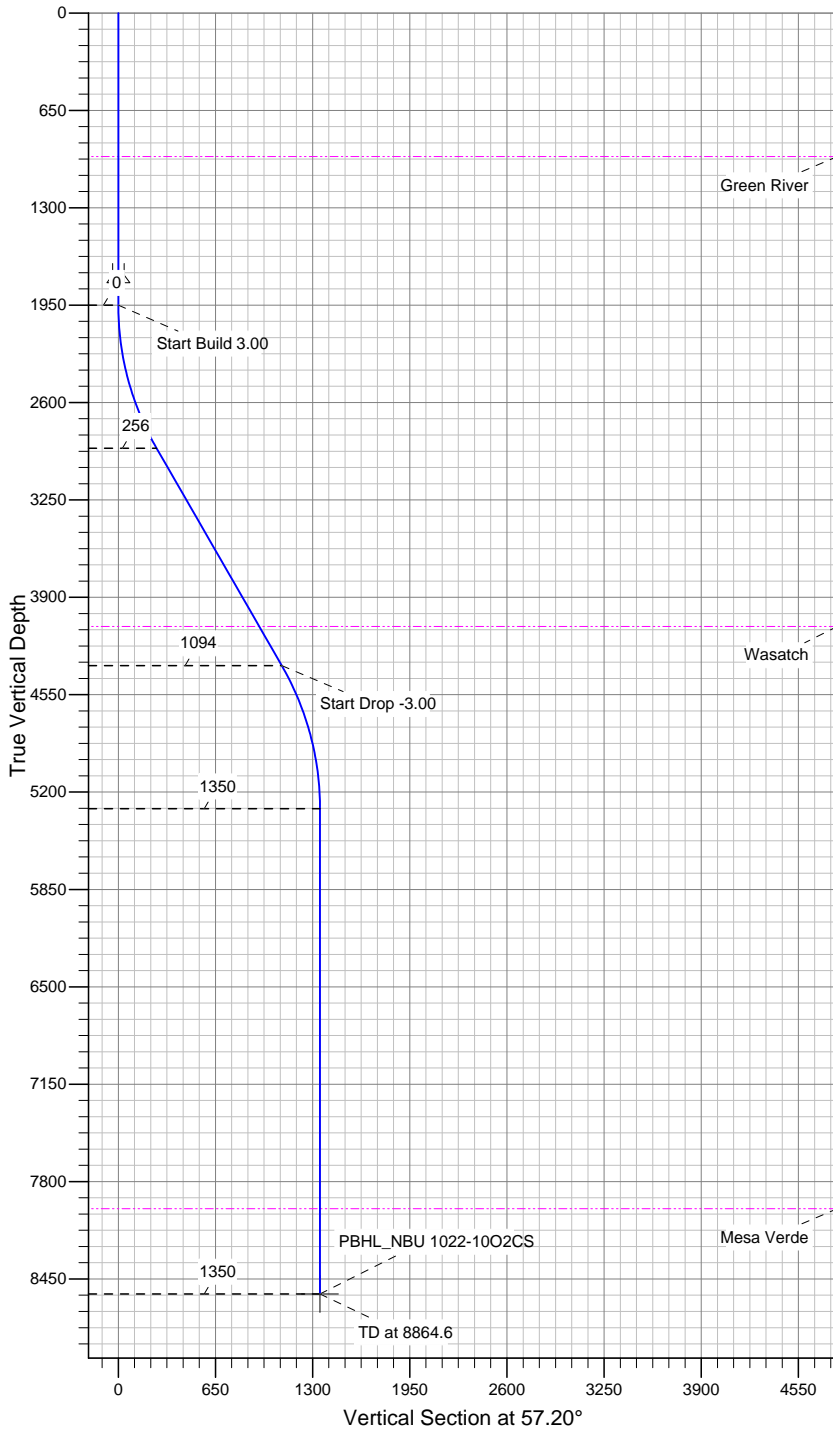
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	8865		
Pipe	Grade	Length	Weight			
	Grade I-80 Buttress	8865	11.6			

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	1965		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	1965	36.0			

DATE SURVEYED: 10-16-08	SURVEYED BY: M.S.B.	SHEET 3 OF 13
DATE DRAWN: 10-21-08	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'	Date Last Revised: 02-24-09	

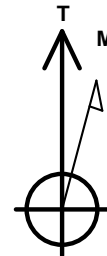


Well Name: P_NBU 1022-1002CS
 Surface Location: UINTAH_NBU 1022-10N PAD
 NAD 1927 (NADCON CONUS)US State Plane 1927 (Exact solution)
 UTAH CENTRAL ZONE - 27
 Ground Elevation: 5094.0
 Northing 598023.97 Easting 2580703.38 Latitude 39.956768°N Longitude 109.428236°W



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	1950.0	0.00	0.00	1950.0	0.0	0.0	0.00	0.00	0.0
3	2950.0	30.00	57.20	2904.9	138.6	215.1	3.00	57.20	255.9
4	4625.7	30.00	57.20	4356.1	592.5	919.3	0.00	0.00	1093.7
5	5625.7	0.00	0.00	5311.0	731.1	1134.4	3.00	180.00	1349.6
6	8864.6	0.00	0.00	8550.0	731.1	1134.4	0.00	0.00	1349.6



Azimuths to True North
 Magnetic North: 11.30°

Magnetic Field
 Strength: 52557.5snT
 Dip Angle: 65.91°
 Date: 4/13/2009
 Model: IGRF200510

ROCKIES - PLANNING

UTAH CENTRAL ZONE - 27

UINTAH_NBU 1022-10N PAD

P_NBU 1022-10O2CS

P_NBU 1022-10O2CS

Plan: Plan #1 04-13-09 ZJRA6

Standard Planning Report - Geographic

13 April, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_NBU 1022-1002CS
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 5094.0ft (Original Well Elev)
Project:	UTAH CENTRAL ZONE - 27	MD Reference:	WELL @ 5094.0ft (Original Well Elev)
Site:	UINTAH_NBU 1022-10N PAD	North Reference:	True
Well:	P_NBU 1022-1002CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 1022-1002CS		
Design:	Plan #1 04-13-09 ZJRA6		

Project	UTAH CENTRAL ZONE - 27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	UINTAH_NBU 1022-10N PAD		
Site Position:		Northing:	598,030.96ft
From:	Lat/Long	Easting:	2,580,722.00ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	39.956786°N
		Longitude:	109.428169°W
		Grid Convergence:	1.33 °

Well	P_NBU 1022-1002CS		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	39.956768°N
		Longitude:	109.428236°W
		Ground Level:	5,094.0 ft

Wellbore	P_NBU 1022-1002CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/13/2009	11.30	65.91	52,557

Design	Plan #1 04-13-09 ZJRA6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	8,550.0	0.0	0.0	57.20

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,950.0	0.00	0.00	1,950.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,950.0	30.00	57.20	2,904.9	138.6	215.1	3.00	3.00	0.00	57.20	
4,625.7	30.00	57.20	4,356.1	592.5	919.3	0.00	0.00	0.00	0.00	
5,625.7	0.00	0.00	5,311.0	731.1	1,134.4	3.00	-3.00	0.00	180.00	
8,864.6	0.00	0.00	8,550.0	731.1	1,134.4	0.00	0.00	0.00	0.00	PBHL_NBU 1022-1

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_NBU 1022-1002CS
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 5094.0ft (Original Well Elev)
Project:	UTAH CENTRAL ZONE - 27	MD Reference:	WELL @ 5094.0ft (Original Well Elev)
Site:	UINTAH_NBU 1022-10N PAD	North Reference:	True
Well:	P_NBU 1022-1002CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 1022-1002CS		
Design:	Plan #1 04-13-09 ZJRA6		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	598,023.97	2,580,703.38	39.956768°N	109.428236°W
958.0	0.00	0.00	958.0	0.0	0.0	598,023.97	2,580,703.38	39.956768°N	109.428236°W
Green River									
1,800.0	0.00	0.00	1,800.0	0.0	0.0	598,023.97	2,580,703.38	39.956768°N	109.428236°W
Surface Casing									
1,950.0	0.00	0.00	1,950.0	0.0	0.0	598,023.97	2,580,703.38	39.956768°N	109.428236°W
2,950.0	30.00	57.20	2,904.9	138.6	215.1	598,167.52	2,580,915.19	39.957149°N	109.427469°W
4,324.2	30.00	57.20	4,095.0	510.8	792.6	598,552.98	2,581,483.96	39.958170°N	109.425408°W
Wasatch									
4,625.7	30.00	57.20	4,356.1	592.5	919.3	598,637.55	2,581,608.75	39.958394°N	109.424956°W
5,625.7	0.00	0.00	5,311.0	731.1	1,134.4	598,781.10	2,581,820.56	39.958775°N	109.424189°W
8,295.6	0.00	0.00	7,981.0	731.1	1,134.4	598,781.10	2,581,820.56	39.958775°N	109.424189°W
Mesa Verde									
8,864.6	0.00	0.00	8,550.0	731.1	1,134.4	598,781.10	2,581,820.56	39.958775°N	109.424189°W

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_NBU 1022-10C	0.00	0.00	8,550.0	731.1	1,134.4	598,781.10	2,581,820.56	39.958775°N	109.424189°W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.0	1,800.0	Surface Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,295.6	7,981.0	Mesa Verde		0.00	
958.0	958.0	Green River		0.00	
4,324.2	4,095.0	Wasatch		0.00	

NBU 1022-1002CS

Pad: NBU 1022-10N

Surface: 180' FSL 1,803' FWL (SE/4SW/4)

BHL: 915' FSL 2,310' FEL (SW/4SE/4)

Sec. 10 T10S R22E

Uintah, Utah

Mineral Lease: UTU 025187

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:

Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	958'	
Birds Nest	1,300'	Water
Mahogany	1,762'	Water
Wasatch	4,095'	Gas
Mesaverde	6,412'	Gas
MVU2	7,411'	Gas
MVL1	7,981'	Gas
TVD	8,550'	
TD	8,865'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 8,550' TVD, approximately equals 5,293 psi (calculated at 0.60 psi/foot).

Maximum anticipated surface pressure equals approximately 3,224 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

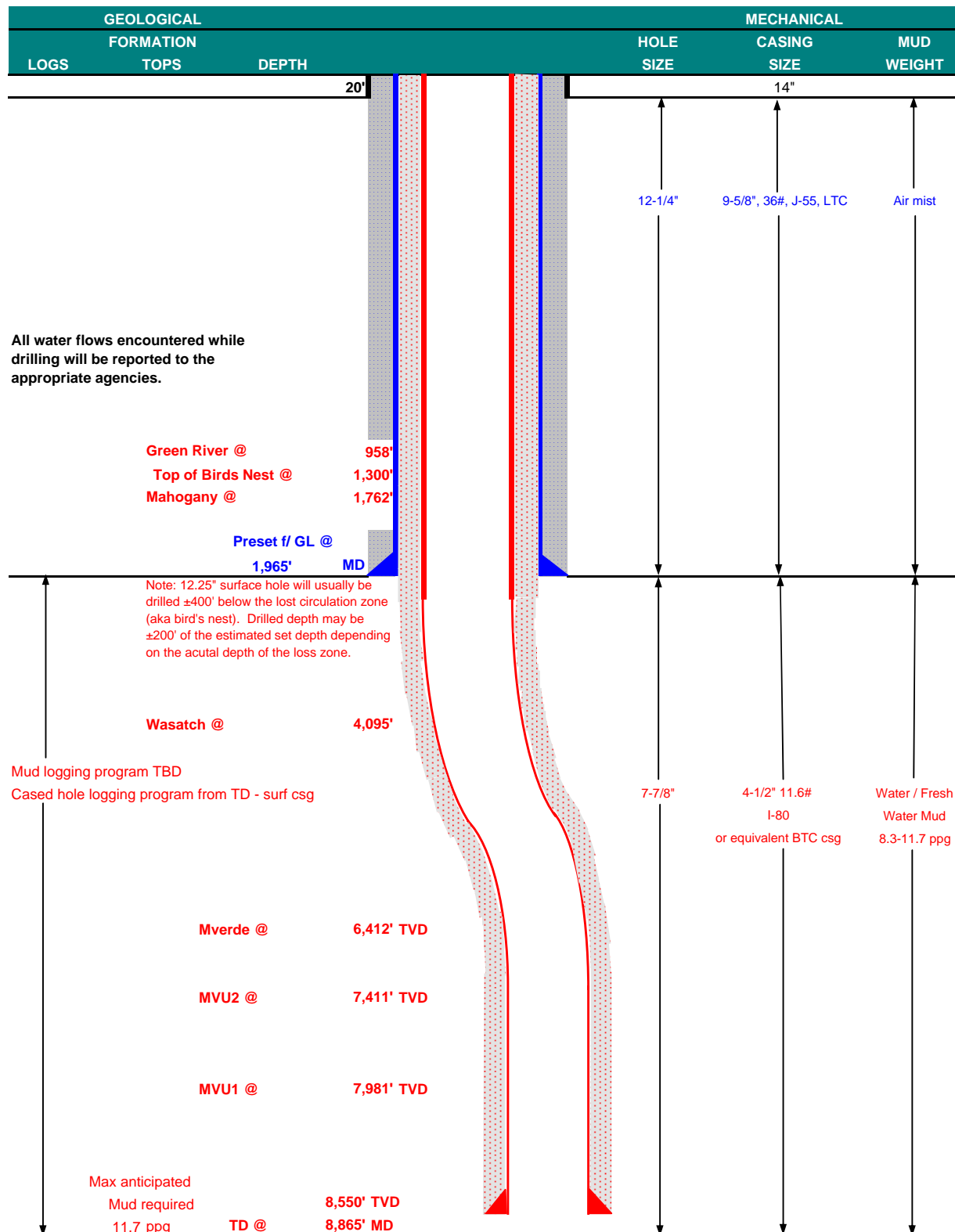
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP					DATE	August 12, 2009		
WELL NAME	NBU 1022-1002CS					TD	8,550'	TVD	8,865' MD
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION		5,094'
SURFACE LOCATION	SE/4 SW/4	180' FSL	1,803' FWL	Sec 10	T 10S	R 22E			
	Latitude: 39.956734		Longitude: -109.428918		NAD 83				
BTM HOLE LOCATION	SW/4 SE/4	915' FSL	2,310' FEL	Sec 10	T 10S	R 22E			
	Latitude: 39.958741		Longitude: -109.424871		NAD 83				
OBJECTIVE ZONE(S)	Wasatch/Mesaverde								
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), Tri-County Health Dept.								





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 1,965	36.00	J-55	LTC	1.02	2.20	8.15
						7,780	6,350	278,000
PRODUCTION	4-1/2"	0 to 8,865	11.60	I-80	BTC	2.34	1.22	3.10

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.7 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,224 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 11.7 ppg)

0.6 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,293 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
			+ 0.25 pps flocele				
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1,465'	65/35 Poz + 6% Gel + 10 pps gilsonite	350	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,595'	Premium Lite II + 3% KCl + 0.25 pps	340	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,270'	50/50 Poz/G + 10% salt + 2% gel	1,290	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

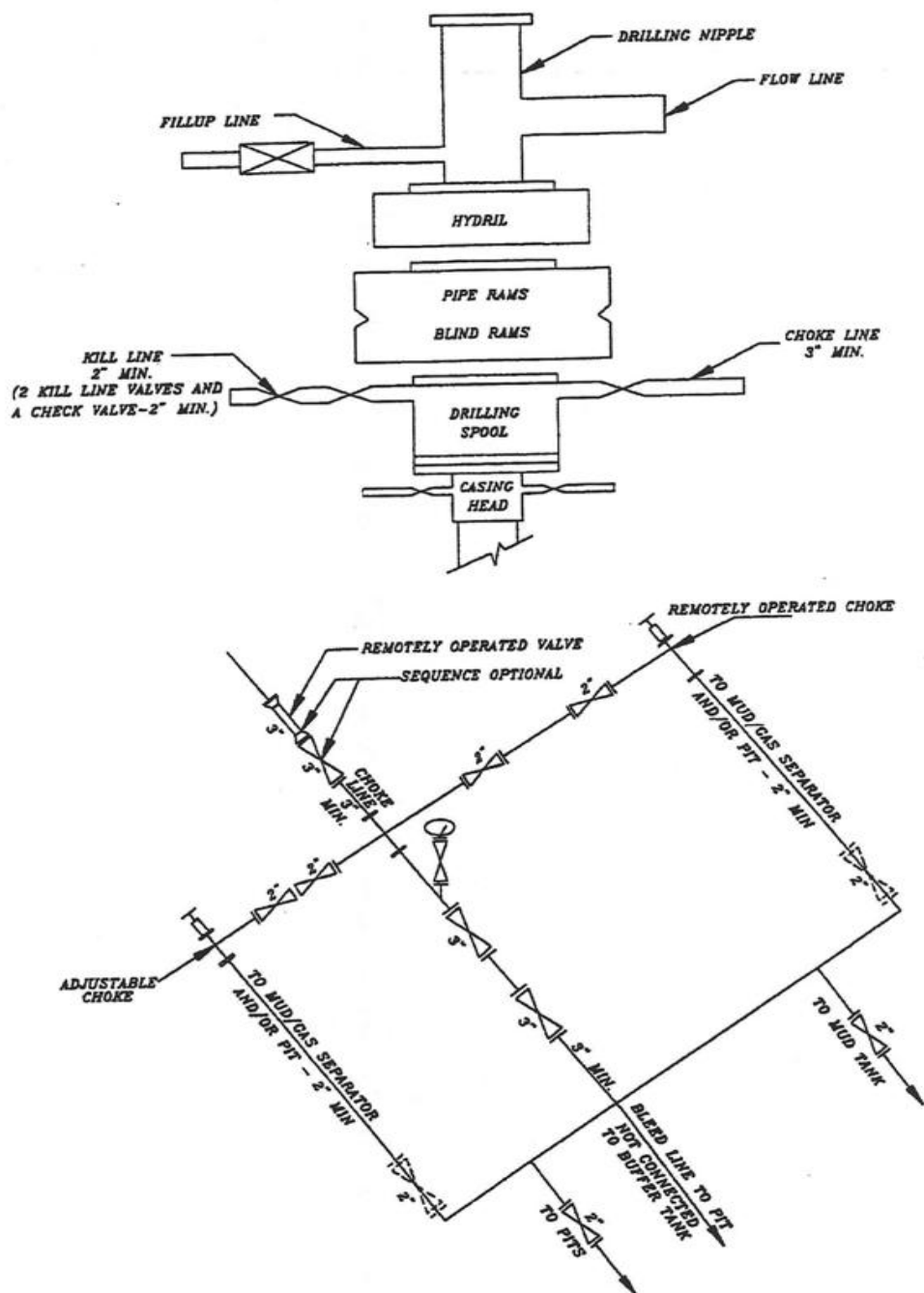
John Huycke / Emile Goodwin

DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

DATE:



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD – NBU 249

BASIS OF BEARINGS IS THE EAST LINE OF THE SE 1/4 OF SECTION 10, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°06'14"W.

SURFACE POSITION FOOTAGES:

NBU 1022-10M1DS
167' FSL, 1765' FWL

NBU 1022-10M1AS
173' FSL, 1784' FWL

NBU 1022-1002CS
180' FSL, 1803' FWL

NBU 1022-1003BS
187' FSL, 1822' FWL

NBU 249 (Existing Well Head)
207' FSL, 1878' FWL

Az=57.17917°
N57°10'45"E – 1350.17'
(To Bottom Hole)

Az=79.09222°
N79°05'32"E – 1137.24'
(To Bottom Hole)

Az=326.41528°
N33°35'05"W – 1367.21'
(To Bottom Hole)

Az=310.79500°
N49°12'18"W – 972.66'
(To Bottom Hole)

Az=250.57611°
S70°34'34"W – 60.00'

NBU 1022-10M1DS
Az. to exist. W.H.=70.57611° 120.00'

NBU 1022-10M1AS
Az. to exist. W.H.=70.57611° 100.00'

NBU 1022-1002CS
Az. to exist. W.H.=70.57611° 80.00'

NBU 1022-1003BS
Az. to exist. W.H.=70.57611° 60.00'

EXISTING WELL: NBU 249

BOTTOM HOLE FOOTAGES

NBU 1022-10M1DS
800' FSL, 1030' FWL

NBU 1022-10M1AS
1310' FSL, 1030' FWL

NBU 1022-1002CS
915' FSL, 2310' FEL

NBU 1022-1003BS
405' FSL, 2310' FEL

RELATIVE COORDINATES

From Surface Position to Bottom Hole

WELL	NORTH	EAST
1022-10M1DS	635'	-736'
1022-10M1AS	1139'	-756'
1022-1002CS	732'	1135'
1022-1003BS	215'	1117'

LATITUDE & LONGITUDE

Surface Position – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
1022-10M1DS	39°57'24.111"	109°25'44.590"
	39.956697°	109.429053°
1022-10M1AS	39°57'24.175"	109°25'44.348"
	39.956715°	109.428986°
1022-1002CS	39°57'24.242"	109°25'44.106"
	39.956734°	109.428918°
1022-1003BS	39°57'24.308"	109°25'43.863"
	39.956752°	109.428851°
EXISTING WELL NBU 249	39°57'24.505"	109°25'43.136"
	39.956807°	109.428649°

LATITUDE & LONGITUDE

Surface Position – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
1022-10M1DS	39°57'24.234"	109°25'42.134"
	39.956732°	109.428371°
1022-10M1AS	39°57'24.299"	109°25'41.892"
	39.956750°	109.428303°
1022-1002CS	39°57'24.366"	109°25'41.650"
	39.956768°	109.428236°
1022-1003BS	39°57'24.431"	109°25'41.407"
	39.956786°	109.428169°
EXISTING WELL NBU 249	39°57'24.628"	109°25'40.681"
	39.956841°	109.427967°

LATITUDE & LONGITUDE

Bottom Hole – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
1022-10M1DS	39°57'30.392"	109°25'54.041"
	39.958442°	109.431678°
1022-10M1AS	39°57'35.431"	109°25'54.052"
	39.959842°	109.431681°
1022-1002CS	39°57'31.468"	109°25'29.535"
	39.958741°	109.424871°
1022-1003BS	39°57'26.429"	109°25'29.526"
	39.957341°	109.424868°

LATITUDE & LONGITUDE

Bottom Hole – (NAD 27)

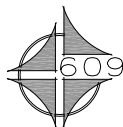
WELL	N. LATITUDE	W. LONGITUDE
1022-10M1DS	39°57'30.516"	109°25'51.584"
	39.958477°	109.430996°
1022-10M1AS	39°57'35.555"	109°25'51.596"
	39.959876°	109.430999°
1022-1002CS	39°57'31.592"	109°25'27.079"
	39.958775°	109.424189°
1022-1003BS	39°57'26.553"	109°25'27.070"
	39.957376°	109.424186°

Kerr-McGee

Oil & Gas Onshore, LP

1099 18th Street – Denver, Colorado 80202

NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-1002CS & NBU 1022-1003BS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M. UTAH COUNTY, UTAH.



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 10-16-08

DATE DRAWN: 10-21-08

SURVEYED BY: M.S.B.

DRAWN BY: E.M.S.

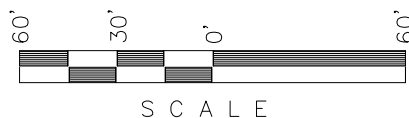
REVISED: 02-07-09

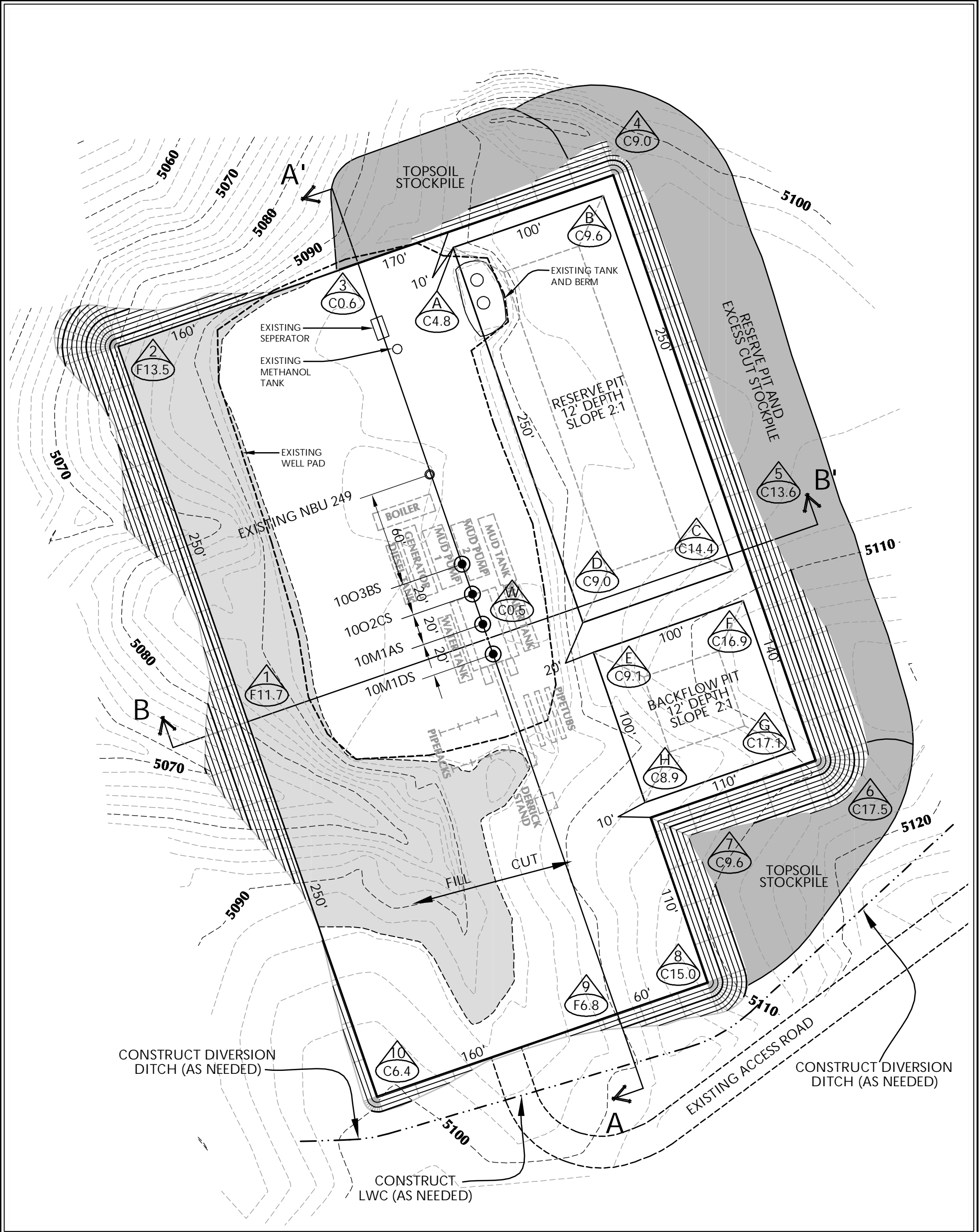
Timberline

Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

(435) 789-1365

SHEET
5
OF 13





WELL PAD NBV 249 QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5,094.0'
FINISHED GRADE ELEVATION = 5,093.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 25,900 C.Y.
TOTAL FILL FOR WELL PAD = 10,567 C.Y.
TOPSOIL @ 6" DEPTH = 2,460 C.Y.
EXCESS MATERIAL = 15,333 C.Y.
TOTAL DISTURBANCE = 4.18 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

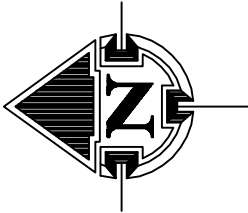
WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale:	1"=60'	Date:	2/24/09	SHEET NO:	6
REVISED:			GH 4/7/09		6 OF 13

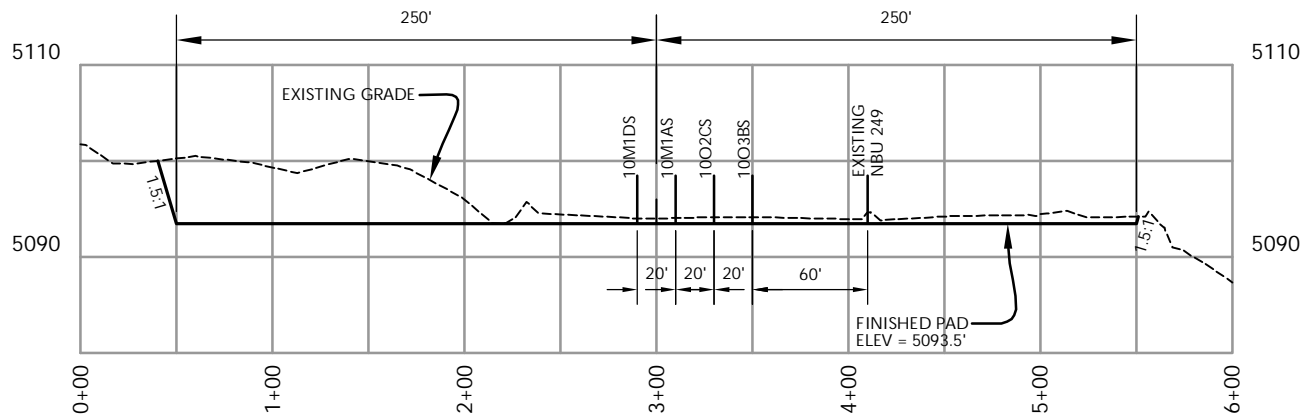


HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

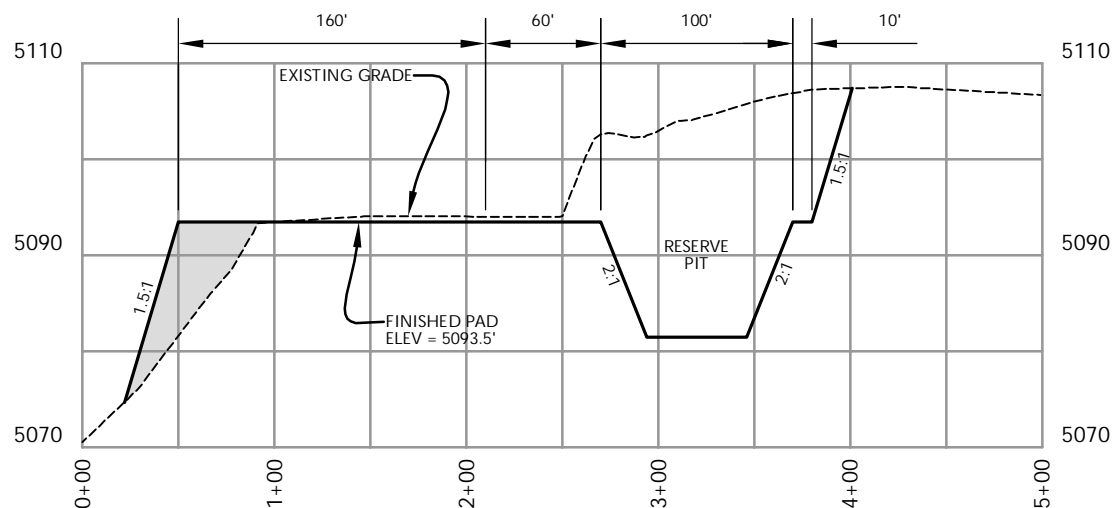
Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - LOCATION LAYOUT
NBV 1022-10M1DS, NBV 1022-10M1AS,
NBV 1022-10O2CS, NBV 1022-10O3BS
LOCATED IN SECTION 10, T.10S., R.22E.
S.L.B.&M., UINTAH COUNTY, UTAH



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS
MAXIMUM RESERVE PIT DEPTH.

**KERR-MCGEE OIL & GAS
ONSHORE L.P.**

1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS, NBU 1022-10O3BS
LOCATED IN SECTION 10, T.10S., R.22E.
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'

Date: 2/24/09

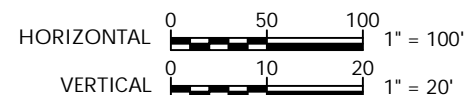
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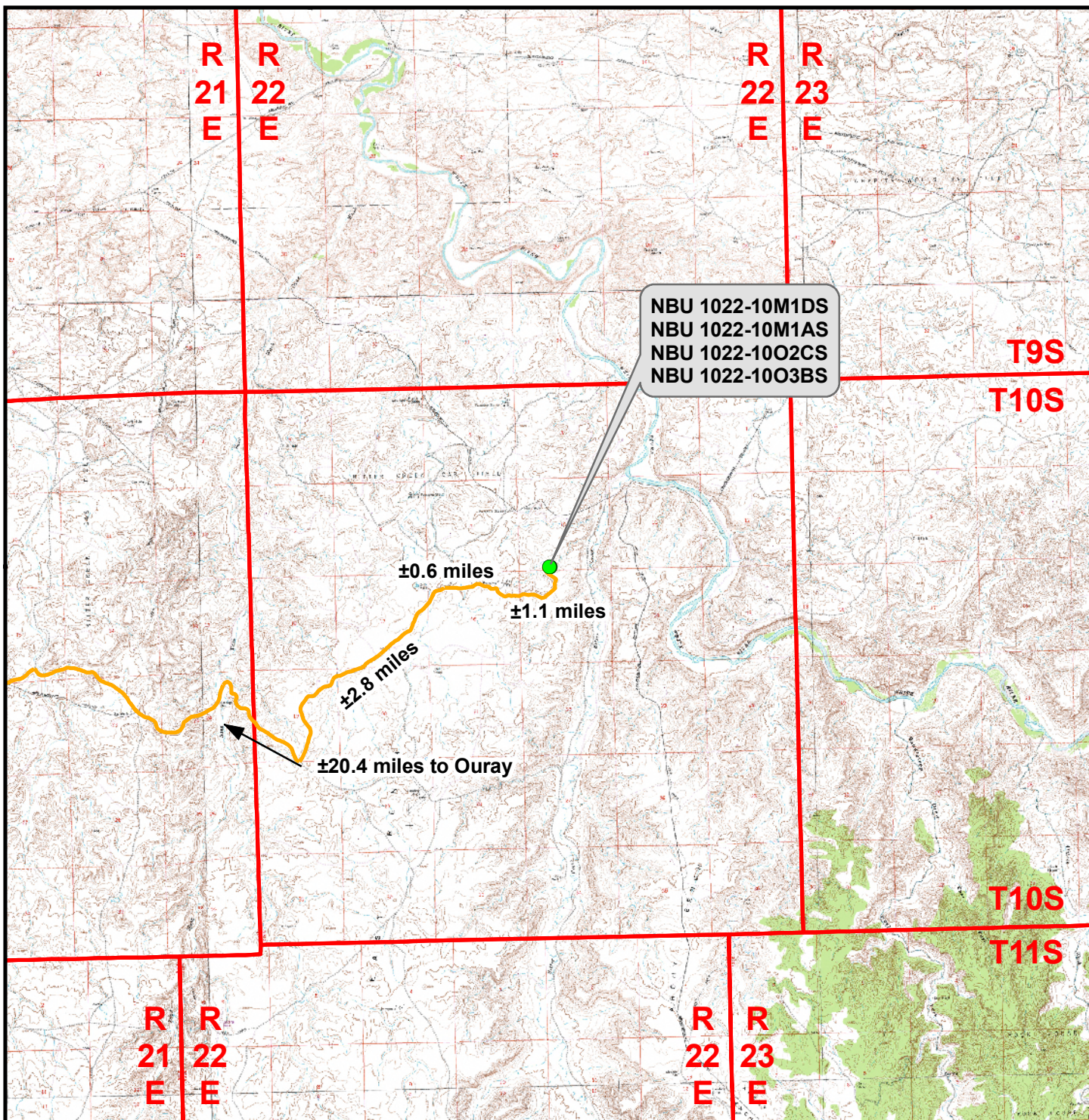
7 OF 13

REVISED:

BY
DATE



Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078



Legend

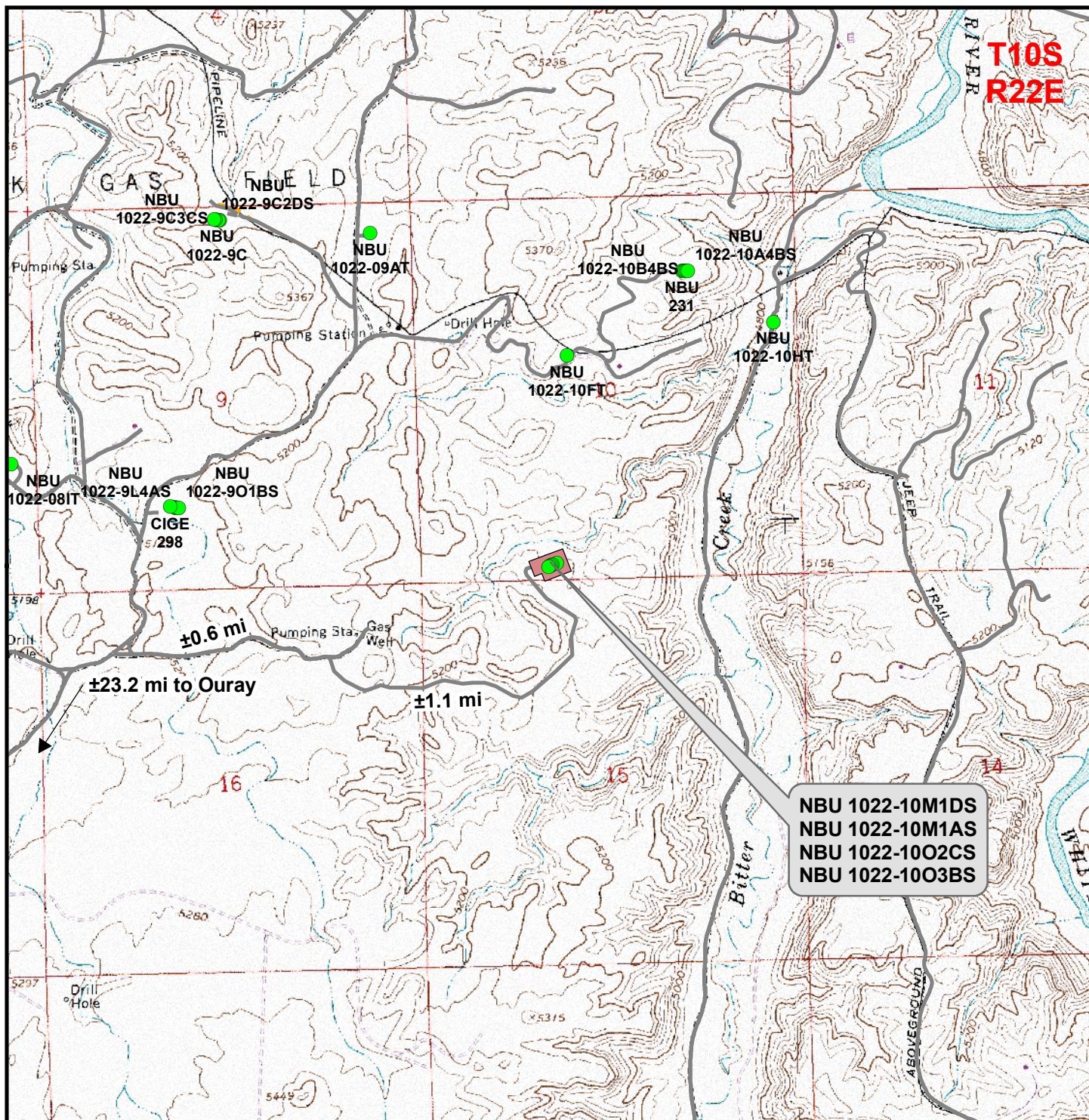
- Proposed Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

**NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS & NBU 1022-10O3BS
Topo A
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah**



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 7 April 2009	9 9 of 13
Revised: CPS	Date: 6 May 2009	



Legend

- Well - Proposed
- Well Pad
- Road - Proposed
- Road - Existing

Total Proposed Road Length: ±0ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

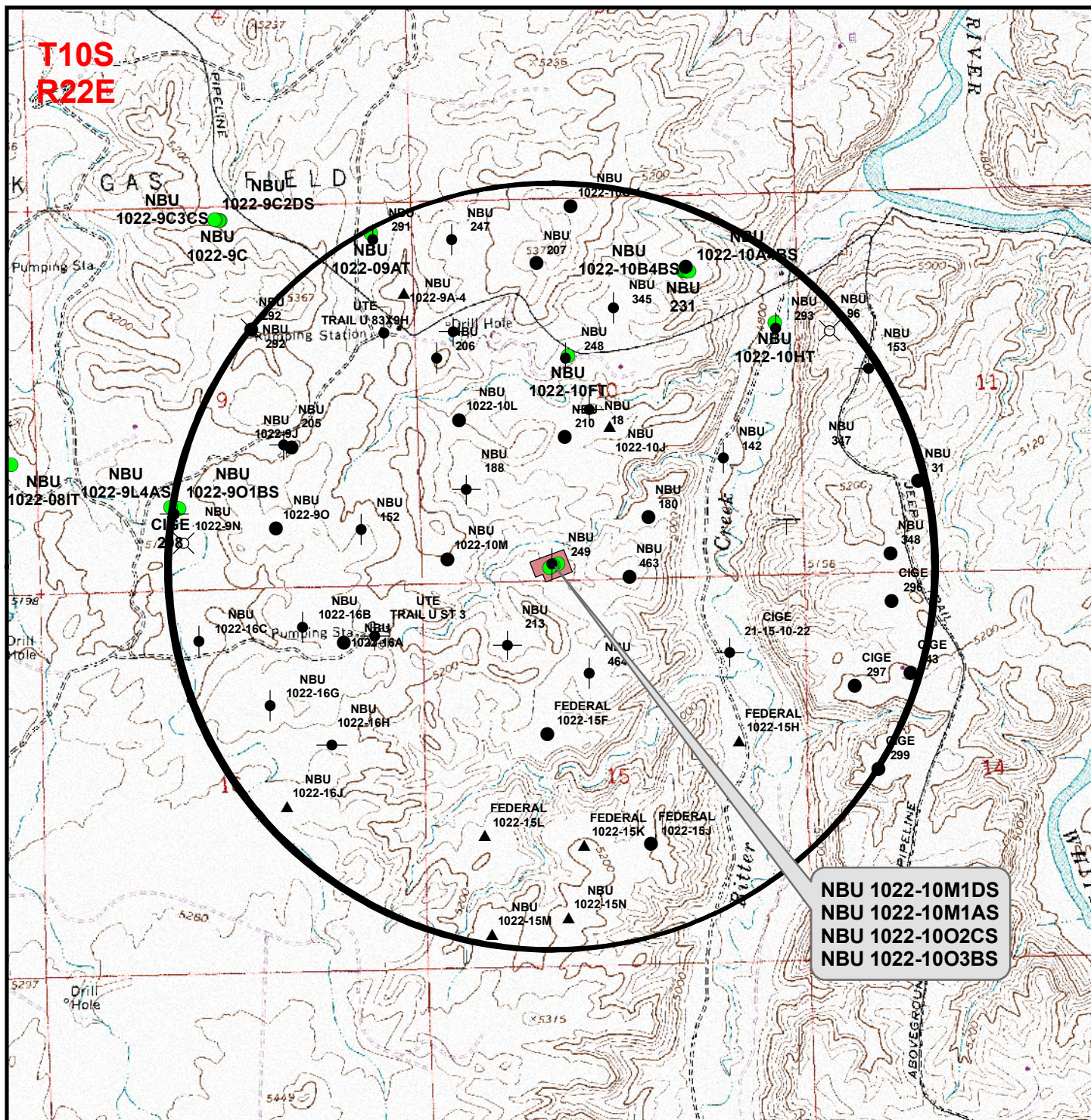
**NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS & NBU 1022-10O3BS
Topo B
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah**

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2,000ft	NAD83 USP Central
Drawn: JELO	Date: 7 April 2009
Revised: CPS	Date: 6 May 2009

Sheet No:
10 10 of 13



NBU 1022-10M1DS
NBU 1022-10M1AS
NBU 1022-10O2CS
NBU 1022-10O3BS

Legend

- Well - Proposed
- Well - 1 Mile Radius
- Producing
- ▲ Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- ⊗ Location Abandoned
- ⊙ Shut-In
- Well Pad
- Temporarily-Abandoned
- ⊙ Plugged and Abandoned

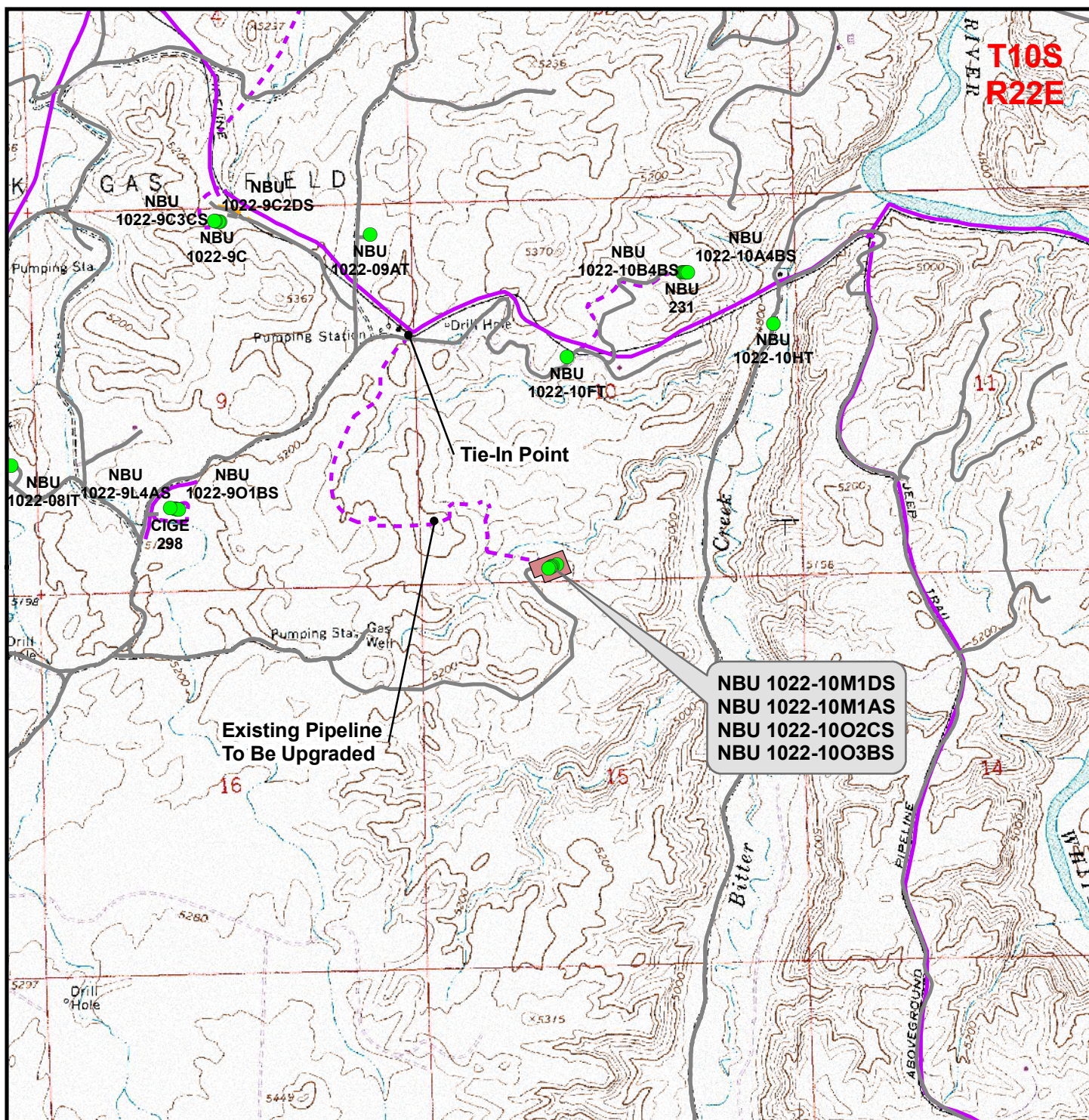
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

**NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS & NBU 1022-10O3BS
Topo C
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah**

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
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Fax (307) 674-0182



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	11
Drawn: JELo	Date: 7 April 2009	11 of 13	
Revised: CPS	Date: 6 May 2009		



Legend

- Well - Proposed ■ Well Pad - - - Road - Proposed - - - Pipeline - Proposed
- Road - Existing — Pipeline - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±6,600ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

**NBU 1022-10M1DS, NBU 1022-10M1AS,
NBU 1022-10O2CS & NBU 1022-10O3BS
Topo D
Located In Section 10, T10S, R22E
S.L.B.&M., Uintah County, Utah**

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182



Scale: 1" = 2,000ft	NAD83 USP Central
Drawn: JELo	Date: 7 April 2009
Revised: CPS	Date: 6 May 2009

Sheet No:
12 12 of 13

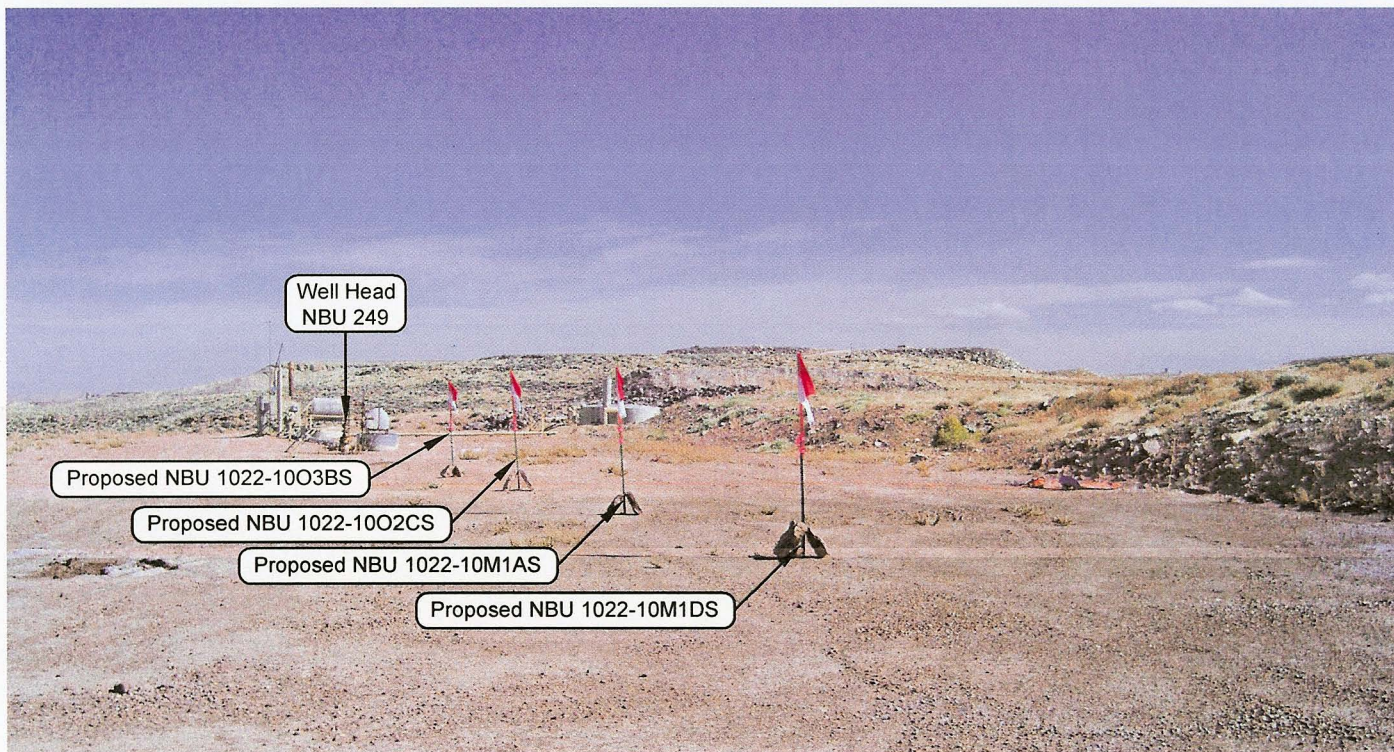


PHOTO VIEW: FROM LOCATION STAKES TO EXISTING WELL HEAD

CAMERA ANGLE: EASTERLY

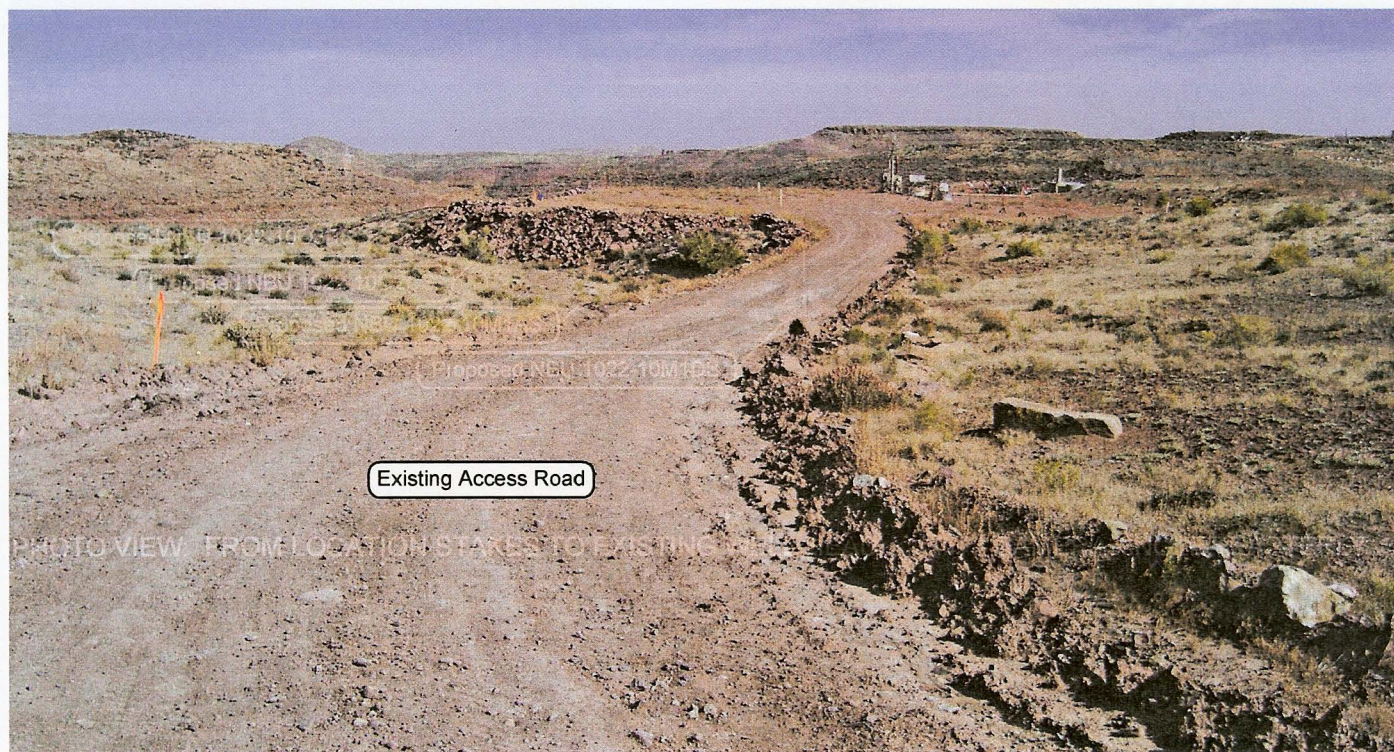
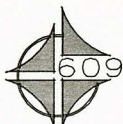


PHOTO VIEW: FROM EXISTING ROAD TO LOCATION STAKES

CAMERA ANGLE: EASTERLY

Kerr-McGee
Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

NBU 1022-10M1DS, NBU 1022-10M1AS,
 NBU 1022-1002CS & NBU 1022-1003BS
 LOCATED IN SECTION 10, T10S, R22E,
 S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

LOCATION PHOTOS

TAKEN BY: M.S.B.

DRAWN BY: E.M.S.

DATE TAKEN: 10-16-08

DATE DRAWN: 10-21-08

REVISED: 02-07-09

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 38 WEST 100 NORTH VERNAL, UTAH 84078

SHEET
8
OF 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O2CS & NBU 1022-10O3BS
Section 10, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 5.2 MILES TO THE INTERSECTION OF THE BITTER CREEK ROAD (COUNTY B ROAD 4120). EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE BITTER CREEK ROAD APPROXIMATELY 4.0 MILES TO A CLASS D COUNTY ROAD RUNNING NORTHEASTERLY. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 2.8 MILES TO A SECOND CLASS D COUNTY ROAD RUNNING EASTERLY. EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.6 MILES TO A SERVICE ROAD RUNNING SOUTHEASTERLY. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN NORTHERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 1.1 MILES TO THE EXISTING WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.6 MILES IN A SOUTHERLY DIRECTION.

NBU 1022-10M1AS

Surface: 173' FSL 1,784' FWL (SE/4SW/4)
BHL: 1,310' FSL 1,030' FWL (SW/4SW/4)
Mineral Lease: UTU 01196C

NBU 1022-10M1DS

Surface: 167' FSL 1,765' FWL (SE/4SW/4)
BHL: 800' FSL 1,030' FWL (SW/4SW/4)
Mineral Lease: UTU 01196C

NBU 1022-10O2CS

Surface: 180' FSL 1,803' FWL (SE/4SW/4)
BHL: 915' FSL 2,310' FEL (SW/4SE/4)
Mineral Lease: UTU 025187

NBU 1022-10O3BS

Surface: 187' FSL 1,822' FWL (SE/4SW/4)
BHL: 405' FSL 2,310' FEL (SW/4SE/4)
Mineral Lease: UTU 025187

Pad: NBU 1022-10N
Sec. 10 T10S R22E

Uintah, Utah

ONSHORE ORDER NO. 1

***MULTI-POINT SURFACE USE & OPERATIONS PLAN
SUBMITTED WITH SITE-SPECIFIC INFORMATION***

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted on March 12, 2009 showing the surface locations in SE/4 SW/4 of Section 10 T10S R22E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BLM-Vernal Field Office.

An on-site meeting was held on March 31, 2009. Present were:

- Verlyn Pindell, Dave Gordon – BLM;
- Kolby Kay – 609 Consulting, LLC
- Tony Kazeck, Raleen White, Sheila Upchego, Grizz Oleen, Hal Blanchard, Charles Chase and Jeff Samuels – Kerr-McGee.

Directional Drilling:

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

A. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

B. Planned Access Roads:

See MDP for additional details on road construction.

No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

C. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

D. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 249, which is a shut-in well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.

Approximately $\pm 7,260'$ (± 1.4 miles) of pipeline is proposed. The existing pipeline, as shown on Topo D, will be upgraded to accommodate anticipated production from the proposed wells. The upgraded pipeline will follow the same route as the existing pipeline. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

Per the onsite meeting, a Stream Alteration permit was requested and will be provided by Kerr-McGee.

E. Location and Type of Water Supply:

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

G. Methods of Handling Waste Materials:

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. Ancillary Facilities:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. Well Site Layout: (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

See MDP for additional details on Other Information.

M. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724


Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Kathy Schneebeck Dulnoan

August 13, 2009
Date



Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

May 5, 2009

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-1002CS
T10S-R22E
Section 10: SWSE
Surface: 180' FSL, 1803' FWL
Bottom Hole: 915' FSL, 2310' FEL
Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-1002CS located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason K. Rayburn
Landman

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 55 PROPOSED WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E,
SECTIONS 4, 7, 8, 9, 10, 18 AND 20,
UINTAH COUNTY, UTAH

By:

Patricia Stavish

Prepared For:
Bureau of Land Management
Vernal Field Office
and
State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-321

February 20, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

IPC #09-98

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Pipeline Re-Routes for
"NBU #1022-10M1DS, M1AS, O2CS, & O3BS"
(Sec. 9 & 10, T 10 S, R 22 E)**

Archy Bench
Topographic Quadrangle
Uintah County, Utah

June 4, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

SPECIAL STATUS PLANT REPORT

Operator: Anadarko Petroleum Company

Wells: NBU 1022-10M1DS
NBU 1022-10M1AS
NBU 1022-10O3BS
NBU 1022-10O2CS

Location: Township 10 South, Range 22 East, Section 10

Survey

Date(s): April 20, 2009
April 21, 2009
May 6, 2009

Observer(s): SWCA Environmental Consultants, Inc.

Weather: April 20: 60-70° Fahrenheit, 0-5% cloud cover, wind speed 0-2 mph
April 21: 60-70° Fahrenheit, 0% cloud cover, wind speed 0-2 mph
May 6: 70° Fahrenheit, 10% cloud cover, wind speed 0-5 mph

PROPOSED PROJECT:

Anadarko proposes to upgrade an existing pipeline and construct gas wells NBU 1022-10M1DS, NBU 1022-10M1AS, NBU 1022-10O3BS, and NBU 1022-10O2CS in Township 10 South, Range 22 East and Section 10. The proposed gas wells are located west of Bonanza, Utah in the Book Cliffs Management Area of the BLM Vernal Field Office. The project area has been historically impacted by mineral extraction activities, transportation corridors, agricultural and ranching activities, livestock grazing, and erosion. There is currently well construction activity occurring within the project area. The pipeline has been rerouted to avoid *Sclerocactus* individuals. Maps of the proposed wells, pipeline upgrade, and pipeline reroute can be found in Appendix D.

PROJECT AREA DESCRIPTION:

The proposed project area is underlain by sedimentary deposits of the Green River Formation of Late Middle Eocene age at an elevation of approximately 5,100 feet. Soils in the project area are predominantly sand and silt. Topography in the project area consists of rolling, sometimes steep terrain with rock outcroppings and a wash. The slopes within the project area boundary range from 0 to 110 percent

The vegetation in the project area is a desert shrub community. For a complete list of common plants associated with the desert shrub community in the project area see Appendix A.

SURVEY METHODOLOGY:

In April and May of 2009, the Utah Department of Wildlife Resources website (<http://dwrcdc.nr.utah.gov/ucdc/>) and the Fish and Wildlife Service (<http://www.fws.gov/mountain-prairie/endspp/countylists/utah.pdf>) were reviewed for Uintah County. These sites contain the U.S. Fish and Wildlife Service list of threatened, endangered,

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 14, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50631	NBU 920-21KT	Sec 21 T09S R20E 1834 FSL 2049 FWL
43-047-50632	NBU 920-21I	Sec 21 T09S R20E 2381 FSL 0645 FEL
43-047-50635	NBU 1022-10M1AS	Sec 10 T10S R22E 0173 FSL 1784 FWL BHL Sec 10 T10S R22E 1310 FSL 1030 FWL
43-047-50636	NBU 1022-10M1DS	Sec 10 T10S R22E 0167 FSL 1765 FWL BHL Sec 10 T10S R22E 0800 FSL 1030 FWL
43-047-50637	NBU 1022-10O2CS	Sec 10 T10S R22E 0180 FSL 1803 FWL BHL Sec 10 T10S R22E 0915 FSL 2310 FEL
43-047-50638	NBU 1022-10O3BS	Sec 10 T10S R22E 0187 FSL 1822 FWL BHL Sec 10 T10S R22E 0405 FSL 2310 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-14-09

API Number: 4304750637

Well Name: NBU 1022-1002CS

Township 10.0 S Range 22.0 E Section 10

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:

Map Produced by Diana Mason

Sections Wells Query Events

<call other values>

GIS_STAT_TYPE

<Null>

APD

DRL

GI

GS

LA

NEW

OPS

PA

PGW

POW

RET

SGW

SOW

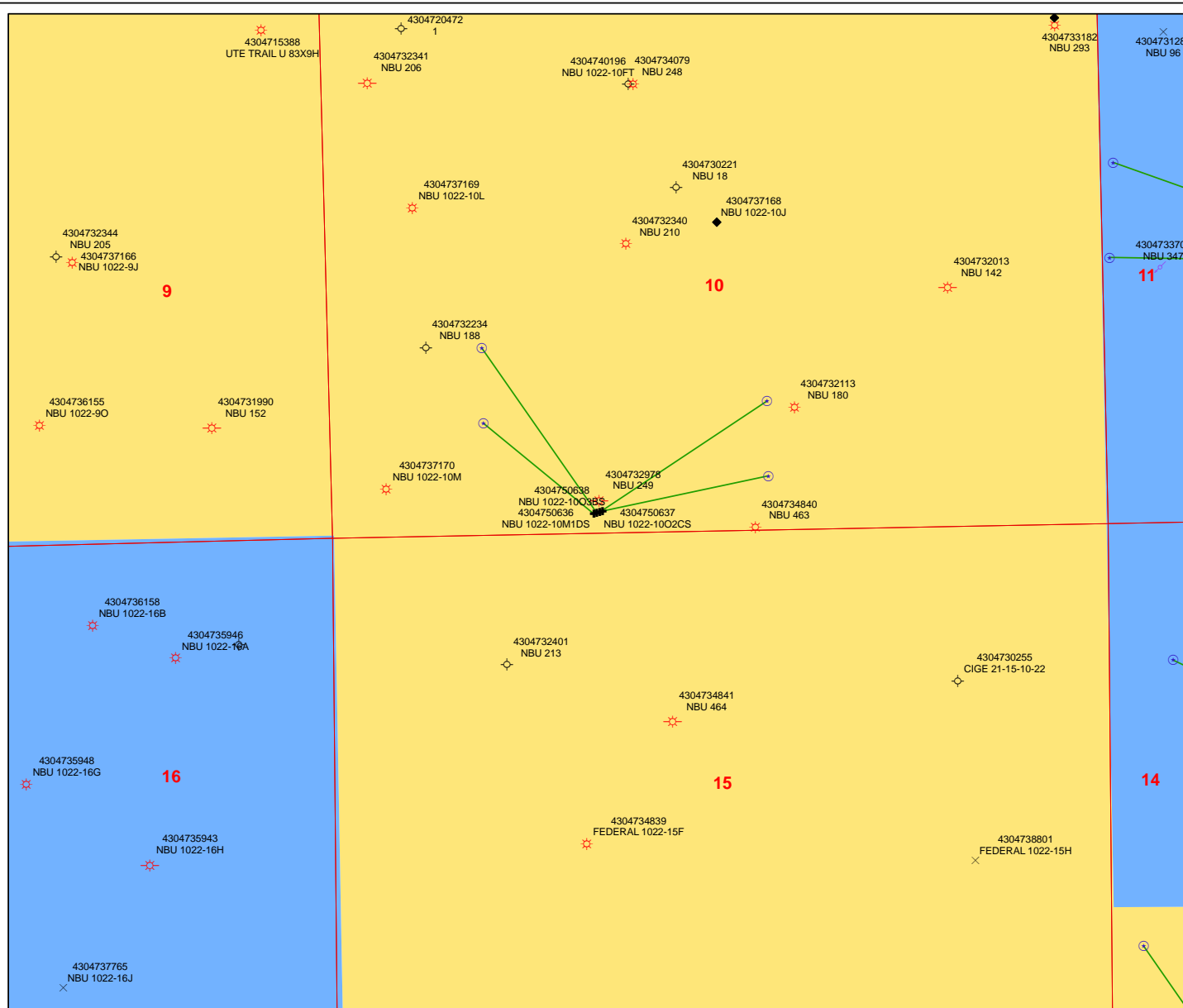
TA

TW

WD

WI

WS



WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/13/2009

API NO. ASSIGNED: 43047506370000

WELL NAME: NBU 1022-1002CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 10 100S 220E

Permit Tech Review: ☒

SURFACE: 0180 FSL 1803 FWL

Engineering Review: ☒

BOTTOM: 0915 FSL 2310 FEL

Geology Review: ☒

COUNTY: UINTAH

LATITUDE: 39.95664

LONGITUDE: -109.42823

UTM SURF EASTINGS: 634258.00

NORTHINGS: 4423918.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 025187

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

☒ **PLAT**

☒ **Bond:** FEDERAL - WYB000291

☐ **Potash**

☒ **Oil Shale 190-5**

☐ **Oil Shale 190-3**

☐ **Oil Shale 190-13**

☒ **Water Permit:** Permit #43-8496

☐ **RDCC Review:**

☐ **Fee Surface Agreement**

☒ **Intent to Commingle**

Commingle Approved

LOCATION AND SITING:

☐ **R649-2-3.**

Unit: NATURAL BUTTES

☐ **R649-3-2. General**

☒ **R649-3-3. Exception**

☒ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

☒ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
1 - Exception Location - dmason
3 - Commingle - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-1002CS

API Well Number: 43047506370000

Lease Number: UTU 025187

Surface Owner: FEDERAL

Approval Date: 8/31/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale

Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

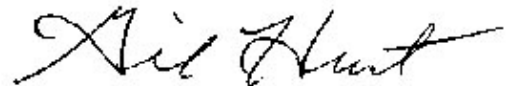
- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized, flowing script.

Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0180 FSL 1803 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047506370000
PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UTAH		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/31/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: August 31, 2010

By:

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 8/30/2010



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506370000

API: 43047506370000

Well Name: NBU 1022-1002CS

Location: 0180 FSL 1803 FWL QTR SESW SEC 10 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/31/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☐ Yes ☒ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

**Approved by the
Utah Division of
Oil, Gas and Mining**

Signature: Danielle Piernot

Date: 8/30/2010

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: August 31, 2010

By: 

RECEIVED August 30, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

AUG 25 2009
me

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU025187
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE LP Contact: DANIELLE E PIERNOT Email: Danielle.Piernot@anadarko.com		7. If Unit or CA Agreement, Name and No. 891008900A
3a. Address PO BOX 173779 DENVER, CO 80202-3779		8. Lease Name and Well No. NBU 1022-1002CS
3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156		9. API Well No. 43-047-50637
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW 180FSL 1803FWL 39.95673 N Lat, 109.42892 W Lon At proposed prod. zone SWSE 915FSL 2310FEL 39.95874 N Lat, 109.42487 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 25 MILES SOUTHEAST OF OURAY, UTAH		11. Sec., T., R., M., or Blk. and Survey or Area Sec 10 T10S R22E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 915 FEET	16. No. of Acres in Lease 600.00	12. County or Parish UINTAH
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 510 FEET	19. Proposed Depth 8865 MD 8550 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5094 GL	22. Approximate date work will start 08/31/2009	17. Spacing Unit dedicated to this well
		20. BLM/BIA Bond No. on file WYB000291
		23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-6156	Date 08/14/2009
Title REGULATORY ANALYST		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date APR 07 2011
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #73220 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 08/17/2009 ()

NOTICE OF APPROVAL

UDOGM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

ADGVT33MAE

NOS 2-12-09

RECEIVED

APR 13 2011

DIV. OF OIL, GAS & MINING



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	Kerr McGee Oil & Gas Onshore	Location:	SESW, Sec. 10, T10S, R22E
Well No:	NBU 1022-1002CS	Lease No:	UTU-025187
API No:	43-047-50637	Agreement:	Natural Buttes Unit

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

***SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)***

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- During operations, if any vertebrate paleontological resources are discovered, in accordance with **Section 6 of Form 3100-11** and **43 CFR 3162.1**, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Vernal BLM office shall be notified within 48 hours of the discovery, an a decision as to the preferred alternative/course of action will be rendered.
- Kerr McGee will adhere to all applicant committed conservation measures and conservation recommendations that are stated in the USFWS's "Final Biological Opinion for the Anadarko Petroleum Corporation Natural Buttes Unit and Bonanza Area Natural Gas Development Project."
- The operator will follow the Green River District Reclamation Guidelines for reclamation.
- The operator will control noxious weeds along the well pad, access road, and the pipeline route by spraying or mechanical removal. On BLM administered land, a Pesticide Use Proposal (PUP) will be submitted and approved prior to the application of herbicides or pesticides or possibly hazardous chemicals.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- A Gamma Ray Log shall be run from TD to surface

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0180 FSL 1803 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047506370000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/12/2011	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER:
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

 Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 07/12/2011

By:

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 7/12/2011	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506370000

API: 43047506370000

Well Name: NBU 1022-1002CS

Location: 0180 FSL 1803 FWL QTR SESW SEC 10 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/31/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☐ Yes ☒ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

Signature: Andy Lytle

Date: 7/12/2011

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Jul. 12, 2011

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 1022-10O2CS
Qtr/Qtr SESW Section 10 Township 10S Range 22E
Lease Serial Number UTU025187
API Number 4304750637

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 08/22/2011 10:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☒ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

RECEIVED

AUG 22 2011

DIV. OF OIL, GAS & MINING

Date/Time 09/07/2011 00:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0180 FSL 1803 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047506370000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 8/22/2011	<input type="checkbox"/> CHANGE WELL STATUS	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> ALTER CASING	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 08/22/2011 AT 1630 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/25/2011	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750637	NBU 1022-1002CS		SESW	10	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	8/22/2011		8/29/11		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 08/22/2011 AT 1630 HRS. <u>BHL = SWSE</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

8/25/2011

Date

(5/2000)

RECEIVED

AUG 25 2011

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0180 FSL 1803 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047506370000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/13/2011	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU AIR RIG ON SEPTEMBER 10, 2011. DRILLED SURFACE HOLE TO 2260'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 9/14/2011		

BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Name/# ENSIGN 139
Submitted By SID ARMSTRONG Phone Number 435- 828 -
0984
Well Name/Number NBU 1022 - 1002CS

Qtr/Qtr SE/SW Section 10 Township 10S Range 22E
Lease Serial Number UTU025187
API Number 43-047-50637

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time _____ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☐ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED

OCT 19 2011

DIV. OF OIL, GAS & MINING

Date/Time _____ AM ☐ PM ☐

BOPE

- ☒ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time 10/19/2010 10:00AM AM ☒ PM ☐

Remarks WILL SKID TO NBU 1022 -10O2CS & WILL BE
TESTING B.O.P'S

BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Name/# ENSIGN 139
Submitted By SID ARMSTRONG Phone Number 435- 828 -
0984
Well Name/Number NBU 1022 - 10O2CS

Qtr/Qtr SE/SW Section 10 Township 10S Range 22E
Lease Serial Number UTU025187
API Number 43-047-50637

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time _____ AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☐ Surface Casing
- ☐ Intermediate Casing
- ☒ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED

OCT 25 2011

DIV. OF OIL, GAS & MINING

Date/Time 1024/2011 00:00 AM ☒ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ AM ☐ PM ☐

Remarks WILL SKID TO NBU 1022 -10M1AS & WILL BE
TESTING B.O.P'S

RECEIVED

OCT 25 2011

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
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PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/25/2011	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2260' TO 8850' ON OCT. 23, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 139 ON OCT. 25, 2011 @ 07:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/25/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-1002CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0180 FSL 1803 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 10 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047506370000
PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/25/2011	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> CHANGE WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2260' TO 8850' ON OCT. 23, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 139 ON OCT. 25, 2011 @ 07:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/25/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 025187			
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PHONE NUMBER: 720 929-6515 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
COUNTY: UINTAH		STATE: UTAH			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/20/2011	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 12/20/2011 AT 12:15 HRS. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.					
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst			
SIGNATURE N/A	DATE 12/21/2011				

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 13 2012

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT OF OIL, GAS & MINING

5. Lease Serial No.
UTU025187

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
UTU63047A8. Lease Name and Well No.
NBU 1022-1002CS9. API Well No.
43-047-5063710. Field and Pool, or Exploratory
NATURAL BUTTES11. Sec., T., R., M., or Block and Survey
or Area Sec 10 T10S R22E Mer SLB12. County or Parish
UINTAH 13. State
UT17. Elevations (DF, KB, RT, GL)*
5094 GL1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Otherb. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other2. Name of Operator
KERR MCGEE OIL & GAS ONSHORE, Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

Contact: JAIME L. SCHARNOWSKE

3. Address PO BOX 173779
DENVER, CO 802173a. Phone No. (include area code)
Ph: 720-929-6304

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SESW 180FSL 1803FWL 39.956734 N Lat, 109.428918 W Lon

At top prod interval reported below SWSE 930FSL 2316FEL

At total depth SWSE 900FSL 2314FEL

14. Date Spudded
08/22/201115. Date T.D. Reached
10/23/201116. Date Completed
☐ D & A ☒ Ready to Prod.
12/20/201118. Total Depth: MD 8850
TVD 860319. Plug Back T.D.: MD 8786
TVD 8539 854120. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/CM/GR/CC/BHV-SD/DSN/ACTR22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	40.0	0	2227		1050		0	
7.875	4.500 I-80	11.6	0	8828		1569		2176	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	8296							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	7031	8774	7031 TO 8774	0.360	192	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7031 TO 8774	PUMP 8,045 BBLs SLICK H2O & 150,320 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/20/2011	01/06/2012	24	→	0.0	1481.0	128.0			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	393	700.0	→	0	1481	128		PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #130586 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	964 1286 1660 4338 6619

32. Additional remarks (include plugging procedure):

Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #130586 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name (please print) JAIME L. SCHARNOWSKETitle REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 02/09/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-1002CS BLUE	Spud Conductor: 8/22/2011	Spud Date: 9/11/2011
Project: UTAH-UINTAH	Site: NBU 1022-10N PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 5/26/2011	End Date: 10/25/2011

Active Datum: RKB @5,108.00usft (above Mean Sea Level) UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/10/2011	22:00 - 23:00	1.00	MIRU	01	B	P		DRESS CONDUCTOR, R/U FLOW NIPPLE & BLOOIE LINE, MOVE RIG ON & RIG UP
	23:00 - 0:00	1.00	MIRU	06	A	P		P/U 12.25 Q507 BIT (RUN #2) HUNTING .17 RPG/1.83 BEND MM (2ND RUN) & DC
9/11/2011	0:00 - 1:30	1.50	DRLSUR	02	D	P		DRILL 12.25 SURFACE HOLE F/ 40' TO 210'
	1:30 - 2:30	1.00	DRLSUR	06	A	P		TOOH
	2:30 - 3:30	1.00	DRLSUR	06	A	P		P/U DIR TOOLS, ORIENT MWD ,TIH
	3:30 - 15:30	12.00	DRLSUR	02	D	P		DRILL 12.25 SURFACE HOLE F/ 210' TO 1250' (1040' @ 86.6' HR) WOB 20-25, RPM 40/90, ON/OFF 1490/1140, UP/SO/ROT 65-45-50, CIRC RESERVE PIT
	15:30 - 16:00	0.50	DRLSUR	08	B	Z		RIG REPAIR, CHANGE SWAB IN PUMP
	16:00 - 22:00	6.00	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 1250' TO 1580' (330' @ 55' HR) WOB 20, RPM 40/90, ON/OFF 1450/1200, UP/SO/ROT , LOST CIRC @ 1460'
	22:00 - 23:00	1.00	DRLSUR	05	D	P		CIRC & COND ,HOLE GETTING TIGHT, PUT AIR ON HOLE WORK PIPE,
	23:00 - 0:00	1.00	DRLSUR	02	D	P		DRILL 12.25 " SURFACE HOLE F/ 1580' TO 1610' (30')
9/12/2011	0:00 - 6:00	6.00	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 1610' TO 1850' (240' @ 40' HR) WOB 20, RPM 40/90, SPM 130, GPM 532, (300 GPM W/ AIR) ON/OFF 1200/1100, UP/SO/ROT 72-50-60, CIRC RESERVE PIT & AIR
	6:00 - 15:30	9.50	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 1850' TO 2260' (410' @ 43.1' HR) TD @ 15:30 9/12/2011, WOB 20, RPM 40/90, SPM 130, 532, (300 GPM W/ AIR) ON/OFF 1400/1200, UP/SO/ROT 80/60/70 ,CIRC RESERVE PIT W/ AIR
	15:30 - 17:30	2.00	DRLSUR	05	C	P		CIRC & COND HOLE CLEAN
	17:30 - 21:30	4.00	DRLSUR	06	A	P		LDDP, DIR TOOLS, MOTOR, BIT
	21:30 - 22:00	0.50	DRLSUR	12	A	P		PREP F/ RUNNING CASING, MOVE CASING INTO WORK AREA
	22:00 - 0:00	2.00	DRLSUR	12	C	P		RUN SURFACE CASING @ 1200'
9/13/2011	0:00 - 0:30	0.50	DRLSUR	05	C	P		FILL CASING @ 1200'
	0:30 - 2:00	1.50	DRLSUR	12	C	P		FINISH RUNNING 52 JTS 9 5/8, 40#, J55, LTC SURFACE CASING, FILL CASING & LAND SHOE @ 2217', BAFFLE @ 2169'
	2:00 - 3:00	1.00	DRLSUR	01	E	P		RUN 200' 1", RIG DOWN MOVE OFF WELL
	3:00 - 4:00	1.00	DRLSUR	12	E	P		SAFETY MEETING W/ PROPETRO, R/U & PUMP 40 BBLS WATER, 20 BBLS GEL, 200 SX (41 BBLS) 15.8#, 1.15 YLD TAIL,DROP PLUG ON FLY, DISPLACE W/ 168 BBLS WATER, FINAL LIFT 200, BUMP PLUG @ 700, FLOAT HELD, NO RETURNS THROUGH OUT JOB, PUMP 1ST TOP OUT DOWN 1" W/100 SX (21 BBLS) 15.8#, 1.15 YLD 4% CACL2, 1/4 SK FLOCELE, NO CEMENT TO SURFACE
	4:00 - 5:30	1.50	DRLSUR	13	A	P		WAIT ON CEMENT

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-1002CS BLUE		Spud Conductor: 8/22/2011		Spud Date: 9/11/2011	
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD			Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 5/26/2011		End Date: 10/25/2011	
Active Datum: RKB @5,108.00usft (above Mean Sea Level)			UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	5:30 - 6:00	0.50	DRLSUR	12	E	P		2ND TOP OUT ,PUMP 150 SX 15.8#, (31 BBLS) 1.15 YLD CEMENT W/ 4% CACL2,1/4# SK FLOCELE, 150# GR-3, NO CEMENT TO SURFACE
	6:00 - 7:30	1.50	DRLSUR	13	A	P		WAIT ON CEMENT
	7:30 - 8:00	0.50	DRLSUR	12	E	P		3RD TOP OUT 150 SX (31 BBLS) 15.8#, 1.15 YLD CEMENT W/ 4% CACL2,1/4# SK FLOCELE, NO CEMENT TO SURFACE
	8:00 - 9:30	1.50	DRLSUR	13	A	P		WAIT ON CEMENT
	9:30 - 10:00	0.50	DRLSUR	12	E	P		4TH TOP OUT 250 SX (51 BBLS) 15.8#, 1.15 YLD CEMENT W/ 2% CACL2, 1/4# SK FLOCELE, NO CEMENT TO SURFACE
	10:00 - 12:00	2.00	DRLSUR	13	A	P		WAIT ON CEMENT
	12:00 - 12:30	0.50	DRLSUR	12	E	P		5TH TOP OUT 200 SX (41 BBLS) 15.8#, 1.15 YLDCEMENT W/ 2% CACL2, 2% FLOCELE,NO CEMENT TO SURFACE, R/D CEMENTERS, RELEASE RIG @ 12:30 9/13/2011
10/19/2011	9:00 - 11:00	2.00	DRLPRO	01	C	P		R/D & SKID RIG TO NBU 1022 1002CS
	11:00 - 12:00	1.00	DRLPRO	14	A	P		N/U B.O.P'S
	12:00 - 14:00	2.00	DRLPRO	09	A	P		SLIP & CUT DRILL LINE
	14:00 - 17:30	3.50	DRLPRO	15	A	P		TEST B.O.P'S
	17:30 - 18:00	0.50	DRLPRO	14	B	P		SET WEAR BUSHING
	18:00 - 20:00	2.00	DRLPRO	06	A	P		P/U MOTOR & BIT & DIR TOOLS & T.I.H
	20:00 - 21:00	1.00	DRLPRO	08	A	P		WORK ON POWER SHOE ON IDM
	21:00 - 22:30	1.50	DRLPRO	06	A	P		CONT T.I.H & TAG CEMENT @ 2153
	22:30 - 0:00	1.50	DRLPRO	02	F	P		DRILL SHOE TRACK
10/20/2011	0:00 - 14:00	14.00	DRLPRO	02	D	P		DIR DRILL F/ 2270 TO 3933 = 1663 ' AVG 118.7 FPH ,WOB 18/20,RPM 40/135,STKS 112,GPM 549,PSI 1250/1500 TORQ 5/7K - SLIDE 472' @ 30% OF 1663' FT DRILL - W/ RES WATER
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SER RIG
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DIR DRILL F/ 3933 TO 5120 = 1187 ' AVG 124.9 FPH ,WOB 18/20,RPM 40/135,STKS 112,GPM 549,PSI 1250/1500 TORQ 5/7K - SLIDE 180 ' @ 15% OF 1187' FT DRILL - W/ RES WATER
10/21/2011	0:00 - 8:00	8.00	DRLPRO	02	D	P		DIR DRILL F/ 5120 TO 6106 = 986 ' AVG 123.25 FPH ,WOB 18/20,RPM 40/135,STKS 112,GPM 549,PSI 1250/1500 TORQ 5/7K - SLIDE 45' @ 4% OF 986' FT DRILL - W/ RES WATER
	8:00 - 10:30	2.50	DRLPRO	08	A	P		PULL 5 STANDS & REPAIR SWIEVEL PACKING
	10:30 - 12:00	1.50	DRLPRO	02	D	P		DIR DRILL F/ 6106 TO 6197= 91 ' AVG 60.6 FPH ,WOB 18/20,RPM 40/135,STKS 112,GPM 549,PSI 1250/1500 TORQ 5/7K - SLIDE 15 ' @ 16% OF 91' FT DRILL - W/ RES WATER
	12:00 - 12:30	0.50	DRLPRO	07	A	P		SER RIG
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DIR DRILL F/ 6197 TO 7085 = 888 ' AVG 77.2 FPH ,WOB 18/20,RPM 40/135,STKS 112,GPM 549,PSI 1550/1800 TORQ 7/10K - SLIDE 12 ' @ 1% OF 888' FT DRILL - W/ RES WATER & VIS UP SYSTEM MW 10.3 VIS 38
10/22/2011	0:00 - 13:00	13.00	DRLPRO	02	D	P		DIR DRILL F/ 7085 TO 7828 = 743 ' AVG 57.1 FPH ,WOB 18/20,RPM 40/135,STKS 100,GPM 490,PSI 1850/2200 TORQ 7/10K - SLIDE 40 ' @ 5% OF 743' FT DRILL - MW 10.8 VIS 38

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-1002CS BLUE		Spud Conductor: 8/22/2011		Spud Date: 9/11/2011	
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD			Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 5/26/2011		End Date: 10/25/2011	
Active Datum: RKB @5,108.00usft (above Mean Sea Level)			UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/23/2011	13:00 - 13:30	0.50	DRLPRO	07	A	P		SER RIG
	13:30 - 0:00	10.50	DRLPRO	02	D	P		DIR DRILL F/ 7828 TO 8358 = 530' AVG 50.4 FPH ,WOB 18/20,RPM 40/135,STKS 100,GPM 490,PSI 1850/2200 TORQ 7/10K - SLIDE 0' @ 0% OF 530' FT DRILL - MW 12.0 VIS 46
	0:00 - 12:00	12.00	DRLPRO	02	D	P		DIR DRILL F/ 8358 TO 8850 = 492' AVG 41.0 FPH ,WOB 18/20,RPM 40/135,STKS 100,GPM 490,PSI 1850/2200 TORQ 7/10K - SLIDE 0' @ 0% OF 492' FT DRILL - MW 12.4 VIS 46
	12:00 - 12:30	0.50	DRLPRO	07	A	P		SER RIG
	12:30 - 13:30	1.00	DRLPRO	05	A	P		CIRC BTM UP
	13:30 - 20:00	6.50	DRLPRO	06	E	P		SHORT TO SHOE - PUMP OUT 12 STANDS W/ PUMP & PULL 5 W/ OUT PUMP OR ROT - PUMP DRY JOB & CONT T.O.H
	20:00 - 0:00	4.00	DRLPRO	06	E	P		T.I.H ON WIPER TRIP
10/24/2011	0:00 - 1:00	1.00	DRLPRO	06	E	P		T.I.H ON WIPER TRIP
	1:00 - 2:30	1.50	DRLPRO	05	A	P		CIRC BTM UP
	2:30 - 10:00	7.50	DRLPRO	06	B	P		T.O.H F/ LOGS - L/D MOTOR - BIT - DIR TOOLS
	10:00 - 10:30	0.50	DRLPRO	14	B	P		PUL WEAR BUSHING
	10:30 - 15:00	4.50	DRLPRO	11	E	P		HELD S/M & R/U HALLIBURTON WIRELINE & RUN TRIPLE COMBO @ 8842
	15:00 - 23:00	8.00	DRLPRO	12	C	P		HELD S.M - R/U FRANKS CASING CREW & RUN 209 JTS PLUS 2 MARKERS - SHOE SET @ 8828 - F/C 8786 - MARKERS JT SET @ 4312 & 6644
	23:00 - 0:00	1.00	DRLPRO	05	D	P		CIRC BTM UP - 5' FLARE 8 BBL GAIN
10/25/2011	0:00 - 2:30	2.50	DRLPRO	12	E	P		SAFETY MEET W/ BJ SER,R/U PRESSURE TEST TO 5K,PUMP 5 BBL FRESH,20 SKS SCAVENGER @ 11.4 PPG 2.69 YLD & ,511 SX LEAD @12.4 2.03 YLD- PLII+8%GEL +4%R-3+2%SMS+25#SK CELLOFLAKE+5#SK KOL-SEAL , F/ TAIL 1058 SKS # 14.3 - YLD 1.31 YLD 50:50+2%GEL+10%SALT+2%R-3 & ,DISPLACE 136.4 BBLs,FINAL LIFT PSI 2552 ,BUMP PLUG 3283,FLOATS HELD, 26 BBL LEAD CEMENT BACK TO RES, 1.5 BBLs WATER BACK TO TRUCK
	2:30 - 6:00	3.50	DRLPRO	14	A	P		WASH OUT STACK & N/D & SET C-22 SLIPS W/ 110K - ROUGH CUT 4.5 CASING & WASH CLEAN OUT MUD TANKS & RELEASED RIG @ 07:00 ON 10/25/2011

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-1002CS BLUE	Wellbore No.	OH
Well Name	NBU 1022-1002CS	Wellbore Name	NBU 1022-1002CS
Report No.	1	Report Date	12/1/2011
Project	UTAH-UINTAH	Site	NBU 1022-10N PAD
Rig Name/No.		Event	COMPLETION
Start Date	12/19/2011	End Date	12/20/2011
Spud Date	9/11/2011	Active Datum	RKB @5,108.00usft (above Mean Sea Level)
UWI	SE/SW0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0		

1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	ED GUDAC
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

Fluid Type		Fluid Density		Gross Interval	7,031.0 (usft)-8,774.0 (usft)	Start Date/Time	
Surface Press		Estimate Res Press		No. of Intervals	29	End Date/Time	
TVD Fluid Top		Fluid Head		Total Shots	192	Net Perforation Interval	51.00 (usft)
Hydrostatic Press		Press Difference		Avg Shot Density	3.76 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL					Final Press Date	

1.5 Summary

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
	MESAVERDE/			7,031.0	7,033.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

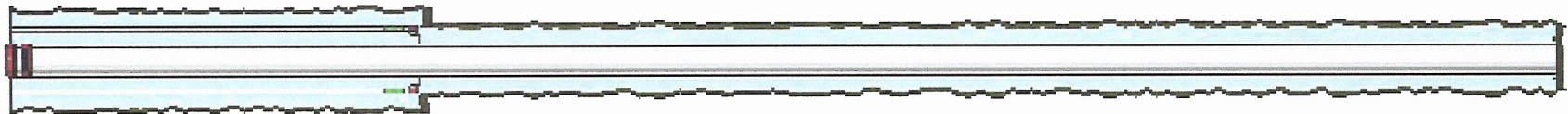
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
	MESAVERDE/			7,057.0	7,061.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,126.0	7,128.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,194.0	7,197.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,292.0	7,293.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,413.0	7,414.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,484.0	7,488.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,568.0	7,570.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,642.0	7,643.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,667.0	7,668.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,695.0	7,696.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,716.0	7,717.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,764.0	7,765.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,780.0	7,781.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,789.0	7,790.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,798.0	7,799.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,983.0	7,986.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,096.0	8,099.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,161.0	8,162.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,170.0	8,172.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,182.0	8,183.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,227.0	8,228.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
	MESAVERDE/			8,249.0	8,250.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,332.0	8,334.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,429.0	8,431.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,514.0	8,516.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,622.0	8,624.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,657.0	8,659.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			8,772.0	8,774.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-10O2CS BLUE			Spud Conductor: 8/22/2011			Spud Date: 9/11/2011			
Project: UTAH-UINTAH			Site: NBU 1022-10N PAD				Rig Name No: SWABBCO 6/6, SWABBCO 6/6		
Event: COMPLETION			Start Date: 12/19/2011				End Date: 12/20/2011		
Active Datum: RKB @5,108.00usft (above Mean Sea Level)				UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
12/1/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= PWR SWWL SAFETY	
	7:15 - 17:00	9.75	WO/REP	30		P		CONTINUE TO PU TUBING TAG FILL @ 8750' RU PWR SWWL & DRILLING HEAD C/O & DRILL TO 8794' CIRC CLEAN POOH LD TUBING & BHA ND BOPS NU FRAC VALVE FILL HOLE W/ TMAC SIW FILL SURFACE ON ALL WELLS RD RIG & PMP PREP TO MOVE IN AM SDFN	
12/2/2011	7:00 - 8:30	1.50	COMP	33		P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 19 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 26 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 79 PSI NO COMMUNICATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWFW	
12/12/2011	7:00 - 15:00	8.00	COMP	36	B	P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLESIZE. 90 DEG PHASING. RIH PERF AS PER DESIGN. POOH. SWFN.	
12/13/2011	6:45 - 7:00	0.25	COMP	48		P		HELD SAFETY MEETING: SLIPS TRIPS & FALLS	

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-10O2CS BLUE		Spud Conductor: 8/22/2011	Spud Date: 9/11/2011
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION		Start Date: 12/19/2011	End Date: 12/20/2011
Active Datum: RKB @5,108.00usft (above Mean Sea Level)		UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 1)WHP 570 PSI, BRK 3547 PSI @ 4.4 BPM. ISIP 2270 PSI, FG .70 CALC HOLES OPEN @ 50.0 BPM @ 5654 PSI = 83% HOLES OPEN. ISIP 2686 PSI, FG .75, NPI 416 PSI. MP 6371 PSI, MR 50.1 BPM, AP 5325 PSI, AR 49.9 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR WL</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8546' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 2)WHP 1717 PSI, BRK 0000 PSI @ 4.4 BPM. ISIP 2649 PSI, FG .75. CALC HOLES OPEN @ 31.8 BPM @ 5059 PSI = 60% HOLES OPEN. ISIP 2732 PSI, FG .76, NPI 0000 PSI. MP 6676 PSI, MR 50.2 BPM, AP 4898 PSI, AR 50.0 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR WL</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8280' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 3)WHP 2336 PSI, BRK 4207 PSI @ 4.4 BPM. ISIP 2481 PSI, FG .74. CALC HOLES OPEN @ 37.4 BPM @ 5763 PSI = 60% HOLES OPEN. ISIP 2794 PSI, FG .78, NPI 313 PSI. MP 6422 PSI, MR 45.3 BPM, AP 6136 PSI, AR 39.1 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR WL</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8129' P/U PERF AS PER PERF DESIGN. POOH. SWIFN</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-10Q2CS BLUE		Spud Conductor: 8/22/2011		Spud Date: 9/11/2011	
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD		Rig Name No: SWABBCO 6/6, SWABBCO 6/6	
Event: COMPLETION		Start Date: 12/19/2011		End Date: 12/20/2011	
Active Datum: RKB @5,108.00usft (above Mean Sea Level)		UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/14/2011	8:00 - 18:00	10.00	COMP	36		P		<p>FRAC STG 4)WHP 1980 PSI, BRK 3483 PSI @ 4.6 BPM. ISIP 2356 PSI, FG .73. CALC HOLES OPEN @ 37.2 BPM @ 5983 PSI = 60% HOLES OPEN. ISIP 2667 PSI, FG .77, NPI 311 PSI. MP 6517 PSI, MR 39.3 BPM, AP 5396 PSI, AR 38.7 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L.</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7907' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW.</p> <p>FRAC STG 5)WHP 1150 PSI, BRK 3232 PSI @ 3.8 BPM. ISIP 2407 PSI, FG .75. CALC HOLES OPEN @ 39.3 BPM @ 4546 PSI = 82% HOLES OPEN. ISIP 3015 PSI, FG .83, NPI 608 PSI. MP 5286 PSI, MR 39.4 BPM, AP 4583 PSI, AR 38.8 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7600' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW.</p> <p>FRAC STG 6)WHP 1257 PSI, BRK 3366 PSI @ 4.1 BPM. ISIP 2036 PSI, FG .71. CALC HOLES OPEN @ 37.9 BPM @ 6161 PSI = 60% HOLES OPEN. ISIP 3390 PSI, FG .81, NPI 1354 PSI. MP 6686 PSI, MR 39.3 BPM, AP 6251 PSI, AR 37.7 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7323' P/U PERF AS PER DESIGN. POOH. SWFN.</p>

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-1002CS BLUE		Spud Conductor: 8/22/2011		Spud Date: 9/11/2011	
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD		Rig Name No: SWABBCO 6/6, SWABBCO 6/6	
Event: COMPLETION		Start Date: 12/19/2011		End Date: 12/20/2011	
Active Datum: RKB @5,108.00usft (above Mean Sea Level)		UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/15/2011	8:00 - 18:00	10.00	COMP	36	B	P		<p>FRAC STG 7)WHP 1100 PSI, BRK 3968 PSI @ 4.6 BPM. ISIP 2166 PSI, FG .74. CALC HOLES OPEN @ 39 BPM @ 5846 PSI = 60% HOLES OPEN. ISIP 2667 PSI, FG .81, NPI 501 PSI. MP 6048 PSI, MR 39.4 BPM, AP 5399 PSI, AR 38 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7091' P/U PERF AS PER DESIGN. POOH. X-OVER FOR FRAC CREW.</p> <p>FRAC STG 8)WHP 2020 PSI, BRK 3005 PSI @ 4.3 BPM. ISIP 2081 PSI, FG .73. CALC HOLES OPEN @ 38.2 BPM @ 5200 PSI = 60% HOLES OPEN. ISIP 2907 PSI, FG .85, NPI 826 PSI. MP 5874 PSI, MR 39.2 BPM, AP 4868 PSI, AR 37.2 BPM PUMPED 30/50 OTTAWA SAND IN THIS STAGE X-OVER FOR W L</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6981'. POOH. SWI.</p> <p>TOTAL SAND = 150,320 LBS TOTAL CLFL = 8045 BBLS JSA= TALLEY TUBING</p>
12/19/2011	7:00 - 7:15	0.25	COMP	48		P		<p>RD RIG ON 10 03BS MOVE RU ON 02CS ND WELLHEAD NU BOPS RU TUBING EQUIP TALLEY & PU TUBING TAG PLG @ 6981' W/ 220 JNTS RU PWR SWWL & DRILL HEAD EST CIRC W/ RIG PUMP.</p> <p>PLUG #1] DRILL THRU HALLI 8K CBP @ 6981' IN 4 MIN W/ 100# INCREASE</p> <p>PLUG #2] CONTINUE TO RIH TAG SAND @ 7062' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7087' IN 6 MIN W/ 200# INCREASE</p> <p>PLUG #3] CONTINUE TO RIH TAG SAND @ 7278' (45' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7323' IN 10 MIN W/ 100# INCREASE</p> <p>PLUG #4] CONTINUE TO RIH TAG SAND @ 7564' (30' FILL) C/O & DRILLTHRU HALLI 8K CBP @ 7594' IN 15 MIN W/ 150# INCREASE CONTINUE TO RIH 2 JNTS EOT @ 7660' CIRC CLEAN CONTINUE TO FLOWWELL 30 MIN TO CLEAN UP SIW INSTALL TARP & HEATER SDFN JSA= PWR SWWL SAFETY</p>
	7:15 - 17:00	9.75	COMP	30		P		
12/20/2011	7:00 - 7:15	0.25	COMP	48		P		

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-1002CS BLUE		Spud Conductor: 8/22/2011		Spud Date: 9/11/2011	
Project: UTAH-UINTAH		Site: NBU 1022-10N PAD			Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION		Start Date: 12/19/2011		End Date: 12/20/2011	
Active Datum: RKB @5,108.00usft (above Mean Sea Level)			UWI: SE/SW/0/10/S/22/E/10/0/0/26/PM/S/180/W/0/1803/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 13:00	5.75	COMP	30		P		SIWP= 1700 PSI OPEN WELL TO PIT CONTINUE TO RIH PLUG #5] TAG SAND @ 7799' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7829' IN 15 MIN W/ 200# INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 8104' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8129' IN 10 MIN W/ 150# INCREASE PLUG #7] CONTINUE TO RIH TAG SAND @ 8266' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8286' IN 7 MIN W/ 200# INCREASE PLUG #8] CONTINUE TO RIH TAG SAND @ 8520' (26' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8546' IN 9 MIN W/ 100# INCREASE CONT TO RIH TAG SAND @ 8760' (24' FILL) C/O TO PBTD CIRC CLEAN POOH LD 16 JNTS LAND TUBING ON HNGR w 261 JNTS EOT @ 8296.23' RD PWR SWWL, RIG FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT @ 2900 PSI SIW TURN WELL OVER TO FBC RD RIG MOVE TO 1022-10M1AS RU RIG TOTAL FLUID PUMPED = 8045 BBLS RIG REC = 2200 BBLS LEFT TO REC= 5845 BBLS CTAP DEL 281 JNTS USED 261 JNTS IN WELL RETURNED 20 JNTS K.B.=.....14.00 HNGR=......86 261 JNTS L-80 2-3/8"8279.17 POBS=.....2.20 EOT@.....8269.23 WELL TURNED TO SALES @12:15 HR ON 12/20/11 - 500MCFD, 1920 BWPD, SICP 1600#, FTP 1300#, CK 20/80' WELL IP'D ON 1/6/12 - 1481 MCFD, 0 BOPD, 128 BWPD, CP 700 #, FTP 393#, CK 20/64", LP 121#, 24 HRS
	12:15 - 12:15	0.00	PROD	50				
1/6/2012	7:00 -		PROD	50				



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-10N PAD

NBU 1022-10O2CS

OH

Design: OH

Standard Survey Report

29 December, 2011

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-1002CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	MD Reference:	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-1002CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-10N PAD, SECTION 10 T10S R22E				
Site Position:		Northing:	14,514,189.75 usft	Latitude:	39° 57' 24.431 N
From:	Lat/Long	Easting:	2,080,908.25 usft	Longitude:	109° 25' 41.407 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.01 °

Well	NBU 1022-1002CS, 180' FSL, 1803' FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,514,182.84 usft	Latitude:	39° 57' 24.366 N
	+E/-W	0.00 ft	Easting:	2,080,889.48 usft	Longitude:	109° 25' 41.650 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,094.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/09/26	11.00	65.84	52,286

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	52.13	

Survey Program	Date	2011/12/29		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
10.00	2,208.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,249.00	8,850.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
186.00	2.35	92.18	185.95	-0.14	3.61	2.76	1.34	1.34	0.00
FIRST WFT MWD SURFACE SURVEY									
272.00	3.57	74.33	271.84	0.52	7.95	6.59	1.76	1.42	-20.76
358.00	4.38	61.16	357.63	2.83	13.40	12.31	1.41	0.94	-15.31
448.00	4.94	43.05	447.34	7.32	19.06	19.54	1.74	0.62	-20.12
538.00	6.00	38.18	536.93	13.85	24.61	27.93	1.28	1.18	-5.41
628.00	7.44	34.05	626.31	22.37	30.78	38.03	1.69	1.60	-4.59
718.00	8.81	32.80	715.40	32.99	37.78	50.07	1.53	1.52	-1.39

Company: US ROCKIES REGION PLANNING
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Well: NBU 1022-1002CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-1002CS
TVD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
MD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
808.00	10.25	34.05	804.16	45.42	45.99	64.19	1.62	1.60	1.39
898.00	11.81	34.93	892.49	59.61	55.75	80.60	1.74	1.73	0.98
988.00	12.25	40.80	980.52	74.39	67.27	98.76	1.44	0.49	6.52
1,078.00	13.50	45.80	1,068.26	88.94	81.04	118.57	1.86	1.39	5.56
1,168.00	14.81	50.68	1,155.53	103.55	97.47	140.51	1.97	1.46	5.42
1,258.00	16.00	54.93	1,242.29	117.97	116.52	164.40	1.82	1.32	4.72
1,348.00	17.30	53.79	1,328.52	133.00	137.47	190.16	1.49	1.44	-1.27
1,438.00	17.81	54.05	1,414.33	148.99	159.41	217.30	0.57	0.57	0.29
1,528.00	19.63	56.05	1,499.56	165.51	183.09	246.14	2.14	2.02	2.22
1,618.00	19.75	55.80	1,584.30	182.50	208.21	276.39	0.16	0.13	-0.28
1,708.00	20.63	55.55	1,668.77	200.02	233.86	307.40	0.98	0.98	-0.28
1,798.00	21.88	55.55	1,752.64	218.48	260.77	339.97	1.39	1.39	0.00
1,888.00	22.81	55.30	1,835.89	237.89	288.94	374.13	1.04	1.03	-0.28
1,978.00	23.81	54.55	1,918.54	258.36	318.08	409.70	1.16	1.11	-0.83
2,068.00	24.75	56.43	2,000.58	279.32	348.58	446.63	1.35	1.04	2.09
2,158.00	26.13	58.80	2,081.85	300.00	381.23	485.11	1.91	1.53	2.63
2,208.00	26.99	60.03	2,126.58	311.37	400.48	507.28	2.04	1.72	2.46
LAST WFT MWD SURFACE SURVEY									
2,249.00	27.18	59.88	2,163.08	320.72	416.64	525.78	0.49	0.46	-0.37
FIRST SDI MWD PRODUCTION SURVEY									
2,340.00	26.06	59.66	2,244.43	341.25	451.87	566.19	1.24	-1.23	-0.24
2,430.00	25.89	59.70	2,325.41	361.08	485.77	605.13	0.41	-0.41	0.04
2,521.00	24.66	58.89	2,407.76	380.84	519.06	643.53	1.19	-1.13	-0.89
2,611.00	25.82	60.26	2,489.17	400.26	552.15	681.58	1.44	1.29	1.52
2,702.00	27.75	61.41	2,570.40	420.23	587.96	722.11	2.20	2.12	1.26
2,792.00	28.52	57.92	2,649.77	441.67	624.57	764.17	2.02	0.86	-3.88
2,883.00	28.67	58.75	2,729.67	464.53	661.64	807.47	0.47	0.16	0.91
2,973.00	28.52	58.34	2,808.70	487.01	698.38	850.28	0.27	-0.17	-0.46
3,064.00	25.00	56.48	2,889.94	509.04	732.92	891.06	3.98	-3.87	-2.04
3,155.00	23.89	56.97	2,972.78	529.70	764.40	928.60	1.24	-1.22	0.54
3,245.00	24.31	58.03	3,054.94	549.45	795.39	965.18	0.67	0.47	1.18
3,336.00	23.38	58.90	3,138.17	568.69	826.75	1,001.75	1.09	-1.02	0.96
3,426.00	23.21	57.02	3,220.83	587.57	856.91	1,037.15	0.85	-0.19	-2.09
3,516.00	21.03	56.90	3,304.20	606.04	885.32	1,070.92	2.42	-2.42	-0.13
3,607.00	18.06	57.22	3,389.95	622.60	910.86	1,101.25	3.27	-3.26	0.35
3,698.00	17.31	58.22	3,476.65	637.37	934.23	1,128.76	0.89	-0.82	1.10
3,788.00	17.29	58.21	3,562.58	651.47	956.98	1,155.37	0.02	-0.02	-0.01
3,879.00	17.48	54.86	3,649.42	666.46	979.65	1,182.47	1.12	0.21	-3.68
3,970.00	15.37	54.70	3,736.70	681.29	1,000.68	1,208.17	2.32	-2.32	-0.18
4,060.00	15.05	59.50	3,823.55	694.12	1,020.48	1,231.68	1.44	-0.36	5.33
4,151.00	12.83	60.92	3,911.87	705.03	1,039.49	1,253.38	2.47	-2.44	1.56
4,241.00	11.39	58.09	3,999.87	714.58	1,055.77	1,272.10	1.73	-1.60	-3.14
4,332.00	9.59	58.64	4,089.34	723.28	1,069.87	1,288.57	1.98	-1.98	0.60

Company: US ROCKIES REGION PLANNING
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Site: NBU 1022-10N PAD
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Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-1002CS
TVD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
MD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,422.00	8.71	58.87	4,178.19	730.70	1,082.11	1,302.78	0.98	-0.98	0.26	
4,513.00	7.57	55.20	4,268.28	737.68	1,092.93	1,315.61	1.38	-1.25	-4.03	
4,604.00	5.98	60.97	4,358.64	743.41	1,101.99	1,326.28	1.90	-1.75	6.34	
4,694.00	5.56	70.82	4,448.19	747.11	1,110.21	1,335.05	1.19	-0.47	10.94	
4,785.00	4.46	64.40	4,538.84	750.09	1,117.57	1,342.68	1.35	-1.21	-7.05	
4,875.00	2.81	62.03	4,628.65	752.64	1,122.67	1,348.27	1.84	-1.83	-2.63	
4,966.00	1.83	47.92	4,719.58	754.66	1,125.72	1,351.92	1.24	-1.08	-15.51	
5,057.00	0.85	74.73	4,810.55	755.81	1,127.45	1,353.99	1.25	-1.08	29.46	
5,147.00	0.97	70.17	4,900.54	756.24	1,128.81	1,355.33	0.16	0.13	-5.07	
5,238.00	0.59	152.45	4,991.54	756.09	1,129.75	1,355.98	1.17	-0.42	90.42	
5,328.00	0.73	165.94	5,081.53	755.12	1,130.10	1,355.67	0.23	0.16	14.99	
5,419.00	0.83	138.75	5,172.52	754.06	1,130.68	1,355.47	0.42	0.11	-29.88	
5,509.00	1.03	146.53	5,262.51	752.90	1,131.55	1,355.45	0.26	0.22	8.64	
5,600.00	0.67	188.66	5,353.50	751.69	1,131.93	1,355.00	0.77	-0.40	46.30	
5,690.00	0.36	198.00	5,443.50	750.90	1,131.76	1,354.38	0.36	-0.34	10.38	
5,781.00	0.57	161.70	5,534.49	750.20	1,131.81	1,353.99	0.39	0.23	-39.89	
5,871.00	0.74	166.54	5,624.49	749.21	1,132.09	1,353.60	0.20	0.19	5.38	
5,962.00	0.42	159.60	5,715.48	748.33	1,132.34	1,353.26	0.36	-0.35	-7.63	
6,052.00	0.81	155.45	5,805.48	747.44	1,132.72	1,353.02	0.44	0.43	-4.61	
6,143.00	0.24	275.51	5,896.47	746.87	1,132.80	1,352.73	1.05	-0.63	131.93	
6,233.00	0.50	266.74	5,986.47	746.87	1,132.22	1,352.27	0.29	0.29	-9.74	
6,324.00	0.27	274.85	6,077.47	746.86	1,131.61	1,351.78	0.26	-0.25	8.91	
6,414.00	0.40	299.36	6,167.47	747.03	1,131.12	1,351.51	0.21	0.14	27.23	
6,505.00	0.21	160.21	6,258.47	747.03	1,130.90	1,351.33	0.63	-0.21	-152.91	
6,595.00	0.17	348.44	6,348.47	747.01	1,130.93	1,351.34	0.42	-0.04	-190.86	
6,686.00	0.54	301.17	6,439.47	747.36	1,130.54	1,351.25	0.49	0.41	-51.95	
6,776.00	0.44	334.71	6,529.46	747.89	1,130.03	1,351.17	0.33	-0.11	37.27	
6,867.00	0.44	301.69	6,620.46	748.39	1,129.58	1,351.12	0.27	0.00	-36.29	
6,957.00	0.45	16.83	6,710.46	748.91	1,129.39	1,351.29	0.60	0.01	83.49	
7,048.00	0.55	21.46	6,801.46	749.66	1,129.65	1,351.96	0.12	0.11	5.09	
7,138.00	0.45	11.04	6,891.45	750.41	1,129.88	1,352.60	0.15	-0.11	-11.58	
7,229.00	0.48	89.92	6,982.45	750.76	1,130.33	1,353.17	0.65	0.03	86.68	
7,319.00	0.84	71.73	7,072.44	750.97	1,131.33	1,354.09	0.46	0.40	-20.21	
7,410.00	0.93	118.79	7,163.43	750.82	1,132.61	1,355.01	0.78	0.10	51.71	
7,500.00	1.21	108.02	7,253.42	750.18	1,134.16	1,355.83	0.38	0.31	-11.97	
7,591.00	0.64	80.85	7,344.41	749.96	1,135.57	1,356.82	0.77	-0.63	-29.86	
7,681.00	0.44	146.82	7,434.40	749.75	1,136.26	1,357.23	0.68	-0.22	73.30	
7,772.00	0.72	182.06	7,525.40	748.89	1,136.43	1,356.83	0.48	0.31	38.73	
7,862.00	0.77	164.60	7,615.39	747.74	1,136.57	1,356.24	0.26	0.06	-19.40	
7,953.00	0.65	188.51	7,706.38	746.64	1,136.65	1,355.63	0.35	-0.13	26.27	
8,043.00	0.94	196.60	7,796.38	745.43	1,136.37	1,354.66	0.34	0.32	8.99	
8,134.00	1.19	182.51	7,887.36	743.77	1,136.11	1,353.44	0.40	0.27	-15.48	
8,224.00	1.78	189.81	7,977.33	741.46	1,135.83	1,351.80	0.69	0.66	8.11	
8,315.00	1.80	198.24	8,068.29	738.71	1,135.15	1,349.57	0.29	0.02	9.26	

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Design: OH

Local Co-ordinate Reference: Well NBU 1022-1002CS
TVD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
MD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,405.00	2.19	194.33	8,158.23	735.70	1,134.28	1,347.04	0.46	0.43	-4.34
8,496.00	1.81	192.21	8,249.17	732.61	1,133.54	1,344.56	0.43	-0.42	-2.33
8,586.00	1.71	190.79	8,339.13	729.90	1,132.99	1,342.47	0.12	-0.11	-1.58
8,677.00	2.19	194.22	8,430.08	726.88	1,132.31	1,340.07	0.54	0.53	3.77
8,767.00	2.24	185.57	8,520.01	723.46	1,131.72	1,337.51	0.38	0.06	-9.61
8,796.00	2.03	182.89	8,548.99	722.39	1,131.64	1,336.78	0.80	-0.72	-9.24
LAST SDI MWD PRODUCTION SURVEY									
8,850.00	2.03	182.89	8,602.96	720.48	1,131.54	1,335.53	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
186.00	185.95	-0.14	3.61	FIRST WFT MWD SURFACE SURVEY
2,208.00	2,126.58	311.37	400.48	LAST WFT MWD SURFACE SURVEY
2,249.00	2,163.08	320.72	416.64	FIRST SDI MWD PRODUCTION SURVEY
8,796.00	8,548.99	722.39	1,131.64	LAST SDI MWD PRODUCTION SURVEY
8,850.00	8,602.96	720.48	1,131.54	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-10N PAD

NBU 1022-10O2CS

OH

Design: OH

Survey Report - Geographic

29 December, 2011

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10N PAD
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Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet) **System Datum:** Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Site NBU 1022-10N PAD, SECTION 10 T10S R22E

Site Position: Northing: 14,514,189.75 usft Latitude: 39° 57' 24.431 N
From: Lat/Long Easting: 2,080,908.25 usft Longitude: 109° 25' 41.407 W
Position Uncertainty: 0.00 ft Slot Radius: 13.200 in Grid Convergence: 1.01 °

Well NBU 1022-1002CS, 180' FSL, 1803' FWL

Well Position +N/-S 0.00 ft Northing: 14,514,182.84 usft Latitude: 39° 57' 24.366 N
 +E/-W 0.00 ft Easting: 2,080,889.48 usft Longitude: 109° 25' 41.650 W
Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 5,094.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/09/26	11.00	65.84	52,286

Design OH

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	52.13

Survey Program Date 2011/12/29

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
10.00	2,208.00	Survey #1 WFT MWD SURFACE (OH)	MWD	MWD - Standard
2,249.00	8,850.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,514,182.84	2,080,889.48	39° 57' 24.366 N	109° 25' 41.650 W
10.00	0.00	0.00	10.00	0.00	0.00	14,514,182.84	2,080,889.48	39° 57' 24.366 N	109° 25' 41.650 W
186.00	2.35	92.18	185.95	-0.14	3.61	14,514,182.77	2,080,893.09	39° 57' 24.365 N	109° 25' 41.603 W
FIRST WFT MWD SURFACE SURVEY									
272.00	3.57	74.33	271.84	0.52	7.95	14,514,183.50	2,080,897.42	39° 57' 24.371 N	109° 25' 41.548 W
358.00	4.38	61.16	357.63	2.83	13.40	14,514,185.90	2,080,902.83	39° 57' 24.394 N	109° 25' 41.477 W
448.00	4.94	43.05	447.34	7.32	19.06	14,514,190.49	2,080,908.41	39° 57' 24.438 N	109° 25' 41.405 W
538.00	6.00	38.18	536.93	13.85	24.61	14,514,197.12	2,080,913.84	39° 57' 24.503 N	109° 25' 41.334 W
628.00	7.44	34.05	626.31	22.37	30.78	14,514,205.75	2,080,919.86	39° 57' 24.587 N	109° 25' 41.254 W
718.00	8.81	32.80	715.40	32.99	37.78	14,514,216.50	2,080,926.67	39° 57' 24.692 N	109° 25' 41.164 W
808.00	10.25	34.05	804.16	45.42	45.99	14,514,229.07	2,080,934.67	39° 57' 24.815 N	109° 25' 41.059 W

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10N PAD
Well: NBU 1022-1002CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-1002CS
TVD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
MD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
898.00	11.81	34.93	892.49	59.61	55.75	14,514,243.42	2,080,944.17	39° 57' 24.955 N	109° 25' 40.934 W
988.00	12.25	40.80	980.52	74.39	67.27	14,514,258.40	2,080,955.43	39° 57' 25.101 N	109° 25' 40.786 W
1,078.00	13.50	45.80	1,068.26	88.94	81.04	14,514,273.20	2,080,968.94	39° 57' 25.245 N	109° 25' 40.609 W
1,168.00	14.81	50.68	1,155.53	103.55	97.47	14,514,288.10	2,080,985.11	39° 57' 25.390 N	109° 25' 40.398 W
1,258.00	16.00	54.93	1,242.29	117.97	116.52	14,514,302.85	2,081,003.90	39° 57' 25.532 N	109° 25' 40.153 W
1,348.00	17.30	53.79	1,328.52	133.00	137.47	14,514,318.25	2,081,024.59	39° 57' 25.681 N	109° 25' 39.884 W
1,438.00	17.81	54.05	1,414.33	148.99	159.41	14,514,334.62	2,081,046.24	39° 57' 25.839 N	109° 25' 39.602 W
1,528.00	19.63	56.05	1,499.56	165.51	183.09	14,514,351.56	2,081,069.63	39° 57' 26.002 N	109° 25' 39.298 W
1,618.00	19.75	55.80	1,584.30	182.50	208.21	14,514,368.99	2,081,094.44	39° 57' 26.170 N	109° 25' 38.975 W
1,708.00	20.63	55.55	1,668.77	200.02	233.86	14,514,386.95	2,081,119.78	39° 57' 26.343 N	109° 25' 38.646 W
1,798.00	21.88	55.55	1,752.64	218.48	260.77	14,514,405.88	2,081,146.36	39° 57' 26.525 N	109° 25' 38.300 W
1,888.00	22.81	55.30	1,835.89	237.89	288.94	14,514,425.79	2,081,174.18	39° 57' 26.717 N	109° 25' 37.939 W
1,978.00	23.81	54.55	1,918.54	258.36	318.08	14,514,446.77	2,081,202.96	39° 57' 26.920 N	109° 25' 37.564 W
2,068.00	24.75	56.43	2,000.58	279.32	348.58	14,514,468.26	2,081,233.08	39° 57' 27.127 N	109° 25' 37.173 W
2,158.00	26.13	58.80	2,081.85	300.00	381.23	14,514,489.52	2,081,265.37	39° 57' 27.331 N	109° 25' 36.753 W
2,208.00	26.99	60.03	2,126.58	311.37	400.48	14,514,501.22	2,081,284.41	39° 57' 27.444 N	109° 25' 36.506 W
LAST WFT MWD SURFACE SURVEY									
2,249.00	27.18	59.88	2,163.08	320.72	416.64	14,514,510.85	2,081,300.40	39° 57' 27.536 N	109° 25' 36.298 W
FIRST SDI MWD PRODUCTION SURVEY									
2,340.00	26.06	59.66	2,244.43	341.25	451.87	14,514,532.00	2,081,335.26	39° 57' 27.739 N	109° 25' 35.846 W
2,430.00	25.69	59.70	2,325.41	361.08	485.77	14,514,552.42	2,081,368.81	39° 57' 27.935 N	109° 25' 35.411 W
2,521.00	24.66	58.89	2,407.76	380.84	519.06	14,514,572.77	2,081,401.75	39° 57' 28.130 N	109° 25' 34.983 W
2,611.00	25.82	60.26	2,489.17	400.26	552.15	14,514,592.77	2,081,434.49	39° 57' 28.322 N	109° 25' 34.558 W
2,702.00	27.75	61.41	2,570.40	420.23	587.96	14,514,613.37	2,081,469.95	39° 57' 28.520 N	109° 25' 34.098 W
2,792.00	28.52	57.92	2,649.77	441.67	624.57	14,514,635.45	2,081,506.17	39° 57' 28.732 N	109° 25' 33.628 W
2,883.00	28.67	58.75	2,729.67	464.53	661.64	14,514,658.96	2,081,542.83	39° 57' 28.958 N	109° 25' 33.152 W
2,973.00	28.52	58.34	2,808.70	487.01	698.38	14,514,682.08	2,081,579.17	39° 57' 29.180 N	109° 25' 32.680 W
3,064.00	25.00	56.48	2,889.94	509.04	732.92	14,514,704.72	2,081,613.32	39° 57' 29.397 N	109° 25' 32.236 W
3,155.00	23.89	56.97	2,972.78	529.70	764.40	14,514,725.93	2,081,644.43	39° 57' 29.602 N	109° 25' 31.832 W
3,245.00	24.31	58.03	3,054.94	549.45	795.39	14,514,746.22	2,081,675.07	39° 57' 29.797 N	109° 25' 31.434 W
3,336.00	23.38	58.90	3,138.17	568.69	826.75	14,514,766.01	2,081,706.08	39° 57' 29.987 N	109° 25' 31.031 W
3,426.00	23.21	57.02	3,220.83	587.57	856.91	14,514,785.42	2,081,735.91	39° 57' 30.174 N	109° 25' 30.644 W
3,516.00	21.03	56.90	3,304.20	606.04	885.32	14,514,804.39	2,081,763.99	39° 57' 30.356 N	109° 25' 30.279 W
3,607.00	18.06	57.22	3,389.95	622.60	910.86	14,514,821.40	2,081,789.23	39° 57' 30.520 N	109° 25' 29.951 W
3,698.00	17.31	58.22	3,476.65	637.37	934.23	14,514,836.57	2,081,812.34	39° 57' 30.666 N	109° 25' 29.650 W
3,788.00	17.29	58.21	3,562.58	651.47	956.98	14,514,851.07	2,081,834.84	39° 57' 30.805 N	109° 25' 29.358 W
3,879.00	17.48	54.86	3,649.42	666.46	979.65	14,514,866.46	2,081,857.24	39° 57' 30.953 N	109° 25' 29.067 W
3,970.00	15.37	54.70	3,736.70	681.29	1,000.68	14,514,881.66	2,081,877.99	39° 57' 31.100 N	109° 25' 28.797 W
4,060.00	15.05	59.50	3,823.55	694.12	1,020.48	14,514,894.83	2,081,897.57	39° 57' 31.227 N	109° 25' 28.543 W
4,151.00	12.83	60.92	3,911.87	705.03	1,039.49	14,514,906.07	2,081,916.39	39° 57' 31.334 N	109° 25' 28.299 W
4,241.00	11.39	58.09	3,999.87	714.58	1,055.77	14,514,915.91	2,081,932.49	39° 57' 31.429 N	109° 25' 28.089 W
4,332.00	9.59	58.64	4,089.34	723.28	1,069.87	14,514,924.86	2,081,946.44	39° 57' 31.515 N	109° 25' 27.908 W
4,422.00	8.71	58.87	4,178.19	730.70	1,082.11	14,514,932.50	2,081,958.54	39° 57' 31.588 N	109° 25' 27.751 W
4,513.00	7.57	55.20	4,268.28	737.68	1,092.93	14,514,939.67	2,081,969.24	39° 57' 31.657 N	109° 25' 27.612 W
4,604.00	5.98	60.97	4,358.64	743.41	1,101.99	14,514,945.55	2,081,978.20	39° 57' 31.714 N	109° 25' 27.496 W
4,694.00	5.56	70.82	4,448.19	747.11	1,110.21	14,514,949.40	2,081,986.35	39° 57' 31.750 N	109° 25' 27.390 W
4,785.00	4.46	64.40	4,538.84	750.09	1,117.57	14,514,952.51	2,081,993.65	39° 57' 31.780 N	109° 25' 27.296 W
4,875.00	2.81	62.03	4,628.65	752.64	1,122.67	14,514,955.14	2,081,998.71	39° 57' 31.805 N	109° 25' 27.230 W
4,966.00	1.83	47.92	4,719.58	754.66	1,125.72	14,514,957.22	2,082,001.73	39° 57' 31.825 N	109° 25' 27.191 W
5,057.00	0.85	74.73	4,810.55	755.81	1,127.45	14,514,958.40	2,082,003.43	39° 57' 31.836 N	109° 25' 27.169 W
5,147.00	0.97	70.17	4,900.54	756.24	1,128.81	14,514,958.86	2,082,004.79	39° 57' 31.841 N	109° 25' 27.151 W
5,238.00	0.59	152.45	4,991.54	756.09	1,129.75	14,514,958.72	2,082,005.73	39° 57' 31.839 N	109° 25' 27.139 W
5,328.00	0.73	165.94	5,081.53	755.12	1,130.10	14,514,957.76	2,082,006.10	39° 57' 31.830 N	109° 25' 27.135 W
5,419.00	0.83	138.75	5,172.52	754.06	1,130.68	14,514,956.71	2,082,006.70	39° 57' 31.819 N	109° 25' 27.127 W
5,509.00	1.03	146.53	5,262.51	752.90	1,131.55	14,514,955.56	2,082,007.59	39° 57' 31.808 N	109° 25' 27.116 W

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10N PAD
Well: NBU 1022-10O2CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-10O2CS
TVD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
MD Reference: GL 5094 & KB 14 @ 5108.00ft (ENSGN 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,600.00	0.67	188.66	5,353.50	751.69	1,131.93	14,514,954.36	2,082,007.98	39° 57' 31.796 N	109° 25' 27.111 W
5,690.00	0.36	198.00	5,443.50	750.90	1,131.76	14,514,953.57	2,082,007.83	39° 57' 31.788 N	109° 25' 27.113 W
5,781.00	0.57	161.70	5,534.49	750.20	1,131.81	14,514,952.87	2,082,007.90	39° 57' 31.781 N	109° 25' 27.113 W
5,871.00	0.74	166.54	5,624.49	749.21	1,132.09	14,514,951.88	2,082,008.19	39° 57' 31.771 N	109° 25' 27.109 W
5,962.00	0.42	159.60	5,715.48	748.33	1,132.34	14,514,951.00	2,082,008.46	39° 57' 31.762 N	109° 25' 27.106 W
6,052.00	0.81	155.45	5,805.48	747.44	1,132.72	14,514,950.12	2,082,008.85	39° 57' 31.754 N	109° 25' 27.101 W
6,143.00	0.24	275.51	5,896.47	746.87	1,132.80	14,514,949.56	2,082,008.94	39° 57' 31.748 N	109° 25' 27.100 W
6,233.00	0.50	266.74	5,986.47	746.87	1,132.22	14,514,949.54	2,082,008.36	39° 57' 31.748 N	109° 25' 27.108 W
6,324.00	0.27	274.85	6,077.47	746.86	1,131.61	14,514,949.53	2,082,007.75	39° 57' 31.748 N	109° 25' 27.115 W
6,414.00	0.40	299.36	6,167.47	747.03	1,131.12	14,514,949.69	2,082,007.26	39° 57' 31.750 N	109° 25' 27.122 W
6,505.00	0.21	160.21	6,258.47	747.03	1,130.90	14,514,949.69	2,082,007.04	39° 57' 31.750 N	109° 25' 27.124 W
6,595.00	0.17	348.44	6,348.47	747.01	1,130.93	14,514,949.66	2,082,007.07	39° 57' 31.749 N	109° 25' 27.124 W
6,686.00	0.54	301.17	6,439.47	747.36	1,130.54	14,514,950.01	2,082,006.67	39° 57' 31.753 N	109° 25' 27.129 W
6,776.00	0.44	334.71	6,529.46	747.89	1,130.03	14,514,950.53	2,082,006.15	39° 57' 31.758 N	109° 25' 27.136 W
6,867.00	0.44	301.69	6,620.46	748.39	1,129.58	14,514,951.02	2,082,005.70	39° 57' 31.763 N	109° 25' 27.141 W
6,957.00	0.45	16.83	6,710.46	748.91	1,129.39	14,514,951.54	2,082,005.50	39° 57' 31.768 N	109° 25' 27.144 W
7,048.00	0.55	21.46	6,801.46	749.66	1,129.65	14,514,952.29	2,082,005.75	39° 57' 31.776 N	109° 25' 27.140 W
7,138.00	0.45	11.04	6,891.45	750.41	1,129.88	14,514,953.05	2,082,005.96	39° 57' 31.783 N	109° 25' 27.138 W
7,229.00	0.48	89.92	6,982.45	750.76	1,130.33	14,514,953.40	2,082,006.40	39° 57' 31.787 N	109° 25' 27.132 W
7,319.00	0.84	71.73	7,072.44	750.97	1,131.33	14,514,953.63	2,082,007.40	39° 57' 31.789 N	109° 25' 27.119 W
7,410.00	0.93	118.79	7,163.43	750.82	1,132.61	14,514,953.51	2,082,008.69	39° 57' 31.787 N	109° 25' 27.102 W
7,500.00	1.21	108.02	7,253.42	750.18	1,134.16	14,514,952.89	2,082,010.24	39° 57' 31.781 N	109° 25' 27.083 W
7,591.00	0.64	80.85	7,344.41	749.96	1,135.57	14,514,952.70	2,082,011.66	39° 57' 31.779 N	109° 25' 27.064 W
7,681.00	0.44	146.82	7,434.40	749.75	1,136.26	14,514,952.50	2,082,012.35	39° 57' 31.777 N	109° 25' 27.056 W
7,772.00	0.72	182.06	7,525.40	748.89	1,136.43	14,514,951.64	2,082,012.54	39° 57' 31.768 N	109° 25' 27.053 W
7,862.00	0.77	164.60	7,615.39	747.74	1,136.57	14,514,950.49	2,082,012.70	39° 57' 31.757 N	109° 25' 27.052 W
7,953.00	0.65	188.51	7,706.38	746.64	1,136.65	14,514,949.39	2,082,012.80	39° 57' 31.746 N	109° 25' 27.051 W
8,043.00	0.94	196.60	7,796.38	745.43	1,136.37	14,514,948.18	2,082,012.54	39° 57' 31.734 N	109° 25' 27.054 W
8,134.00	1.19	182.51	7,887.36	743.77	1,136.11	14,514,946.51	2,082,012.31	39° 57' 31.717 N	109° 25' 27.058 W
8,224.00	1.78	189.81	7,977.33	741.46	1,135.83	14,514,944.20	2,082,012.07	39° 57' 31.695 N	109° 25' 27.061 W
8,315.00	1.80	198.24	8,068.29	738.71	1,135.15	14,514,941.44	2,082,011.43	39° 57' 31.667 N	109° 25' 27.070 W
8,405.00	2.19	194.33	8,158.23	735.70	1,134.28	14,514,938.41	2,082,010.62	39° 57' 31.638 N	109° 25' 27.081 W
8,496.00	1.81	192.21	8,249.17	732.61	1,133.54	14,514,935.31	2,082,009.94	39° 57' 31.607 N	109° 25' 27.091 W
8,586.00	1.71	190.79	8,339.13	729.90	1,132.99	14,514,932.59	2,082,009.43	39° 57' 31.580 N	109° 25' 27.098 W
8,677.00	2.19	194.22	8,430.08	726.88	1,132.31	14,514,929.56	2,082,008.81	39° 57' 31.550 N	109° 25' 27.106 W
8,767.00	2.24	185.57	8,520.01	723.46	1,131.72	14,514,926.13	2,082,008.27	39° 57' 31.517 N	109° 25' 27.114 W
8,796.00	2.03	182.89	8,548.99	722.39	1,131.64	14,514,925.06	2,082,008.21	39° 57' 31.506 N	109° 25' 27.115 W
LAST SDI MWD PRODUCTION SURVEY									
8,850.00	2.03	182.89	8,602.96	720.48	1,131.54	14,514,923.14	2,082,008.15	39° 57' 31.487 N	109° 25' 27.116 W
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
186.00	185.95	-0.14	3.61	FIRST WFT MWD SURFACE SURVEY
2,208.00	2,126.58	311.37	400.48	LAST WFT MWD SURFACE SURVEY
2,249.00	2,163.08	320.72	416.64	FIRST SDI MWD PRODUCTION SURVEY
8,796.00	8,548.99	722.39	1,131.64	LAST SDI MWD PRODUCTION SURVEY
8,850.00	8,602.96	720.48	1,131.54	SDI PROJECTION TO TD

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-1002CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Site:	NBU 1022-10N PAD	MD Reference:	GL 5094 & KB 14 @ 5108.00ft (ENSIGN 139)
Well:	NBU 1022-1002CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-Roberts-Local

Checked By: _____	Approved By: _____	Date: _____
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